

Volume

#

R0297

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4-679.

I.

BOOK A-297

WJH 1

FIELD NOTES

OF THE SURVEY OF THE

E-I-G-H-T S-T-A-N-D-A-R-D P-A-R-A-L-L-E-L S-O-U-T-H

through

Ranges No. 1 and 2 West

Of the Salt Lake Base and Meridian,

in the state of Utah,

AS SURVEYED BY

Harvey D. Heist, United States Deputy Surveyor,

Under his Contract No. 251, dated February 13, 1902.

Survey commenced October 8, 1902, 189

Survey completed October 13, 1902, 189

High - 5-77-72 ✓
Low - 5-00 ✓ *602-72*

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 2 W., continued.

CHAINS

marked T.40 S. R.2 W. S.36 B.T.

A cedar 6 ins.diam., bears N.23° 30'E., 53 lks.dist.,

marked T.40 S. R.2 W. S.31 B.T.

Land mountainous.

Soil, rocky 4th.rate.

Timber, scattering cedar and pinon.

Mountainous land on 2.72 chs.

From the Standard Cor.for Tp.40 S.,Rs.1 and 2 W.

I run

West, on the tangent, S. of sec.36.

Over broken sandstone ledges, descend abruptly through scattering cedar and pinon timber.

21.00 Bottom of canon, 500 ft. deep, course S.W.

Begin abrupt ascent.

Difference between measurement of 40.00 chs. by two sets of chainmen, is 10 lks., position of middle point

By 1st. set, 40.05 chs.

By 2nd. set, 39.95 chs., the mean of which is

40.00 Top of rocky ridge, bears N.E. and S.W.

N.0.002 chs. from the tangent,

Set a sandstone 20x12x6 ins., 15 ins. in the ground, for Stan. $\frac{1}{4}$ sec. cor., marked S.C. $\frac{1}{4}$ S. on N. face, from which

A pinon 6 ins. diam., bears N.31°E., 19 lks. dist.,

marked $\frac{1}{4}$ S.36 S.C.B.T.

A pinon 4 ins. diam., bears N.32° W., 32 lks. dist.,

marked $\frac{1}{4}$ S.36 S.C.B.T.

Begin abrupt descent.

71.00 Bottom of ravine 200 ft. deep, course S.W.

Begin abrupt ascent.

Difference between measurement of 80.00 chs. by two sets of chainmen, is 12 lks., position of middle point

By 1st. set, 80.06 chs.,

By 2nd. set, 79.94 chs., the mean of which is

80.00 N.0.002 chs. from the tangent,

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 2 W., continued.

CHAINS

Set a sandstone 20x14x5 ins., 15 ins. in the ground, for stan. cor. of secs. 35 and 36, marked S.C. on N., with 1 groove on E. and 5 grooves on W. faces, from which A pinon 7 ins. diam., bears N. 62° E., 38 lks. dist., marked T. 40 S. R. 2 W. S. 36 B. T.

A pinon 12 ins. diam., bears N. 19° W., 94 lks. dist., marked T. 40 S. R. 2 W. S. 35 B. T.

Land, mountainous.

Soil, rocky 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.00 chs.

S. 89° 59' W., on the tangent, S. of sec. 35.

Ascend over rocky land, through scattering cedar and pinon timber.

8.00 Top of ridge, bears N. E. and S. W.

Descend.

10.00 Begin abrupt descent over sandstone ledges, 800 ft. high, bearing N. E. and S. W.

Leave timber.

15.00 Foot of ledges, bear N. E. and S. W.

Descend over slide rock.

24.40 Leave rocky land, enter bottom along Parea River, bears N. W. and S. E.

Over level, sandy land, through dense grease wood brush.

33.80 Parua River, 35 lks. wide, 15 ins. deep, pure water, course S. E., in bottom of canon 1500 ft. deep, course S. E.

Difference bet. measurement of 40.00 chs. by two sets of chainmen, is 14 lks., position of middle point

By 1st. set, 40.07 chs.,

By 2nd. set, 39.93 chs., the mean of which is

40.00 N. 302 lks. from the tangent.

Set a sandstone 18x12x8 ins., 12 ins. in the ground, for re-established stan. $\frac{1}{4}$ sec. cor., marked S. C. $\frac{1}{4}$ S.

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 2 W., continued.

CHAINS

✓

on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

Pits impracticable.

No trace can be found of the old $\frac{1}{4}$ sec. cor. or the witness cors to closing cors. for secs. 1 and 2, and secs. 2 and 3, which are described by the surveyor general.

October 12: At this cor. I set off $7^{\circ}15'S.$ on decl. arc; and at 11h.47m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}17'N.$

Thence I continue my line,

50.25 Leave bottom land, bears N. and S., begin abrupt ascent over broken sandstone ledges, bearing N. and S.

73.60 Top of ledges, 1000 ft. above Pareah River, bear N. and S. Ascend, enter scattering cedar and pinon timber.

77.70 Top of spur, projects N.

Descend.

Difference bet. measurement of 80.00 chs., by two sets of chainmen, is 22 lks., position of middle point

By 1st. set, 80.11 chs.,

By 2nd. set, 79.89 chs., the mean of which is

80.00 N. 3.1 lks. from the tangent.

Set a sandstone $18 \times 10 \times 6$ ins., 12 ins. in the ground, for stan. cor. to secs. 34 and 35, marked S.C. on N., with 2 grooves on E. and 4 grooves on W. faces; from which
A cedar 8 ins. diam., bears $N. 63^{\circ}E.$, 8 lks. dist.,
marked T.40 S. R.2 W. S.35 B.T.

A cedar 6 ins. diam., bears $N. 43^{\circ}W.$, 34 lks. dist.,
marked T.40 S. R.2 W. S.34 B.T.

Land mountainous.

Soil, sandy and rocky 3rd. and 4th. rate.

Timber, scattering cedar and pinon on 16.40 chs.

Mountainous land or dense undergrowth on 80.00 chs.

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 2 W., continued.

CHAINS	
	S.89°58'W., on the tangent, S. of sec. 34. Descend through scattering cedar and pinon timber.
2.80	Begin abrupt descent over broken sandstone ledges bearing N. and S.
20.00	Bottom of ravine, 400 ft. deep, course N.E. Begin abrupt ascent over broken sandstone ledges, bearing N.E. and S.W.
26.80	Top of sandstone spur, projects N.E. Descend.
29.90	Bottom of ravine, 100 ft. deep, course N.E. Ascend.
34.00	Top of ridge, bears N.15° E. and S.15° W. Descend.
38.00	Bottom of ravine, 150 ft. deep, course S.W. Ascend.
	Difference bet. measurement of 40.00 chs., by two sets of chainmen, is 26 lks., position of middle point By 1st. set, 39.87 chs., By 2nd. set 40.13 chs., the mean of which is
40.00	N.0475 lks. from the tangent. Set a sandstone 20x14x10 ins., 15 ins. in the ground, for stan. $\frac{1}{4}$ sec. cor., marked S.C. $\frac{1}{4}$ S. on N. face, from which A pinon 10 ins. diam., bears N.4° E., 15 lks. dist., marked $\frac{1}{4}$ S.34 S.C.B.T A pinon 14 ins. diam., bears S.30° E., 40 lks. dist., marked $\frac{1}{4}$ S.3 S.C.B.T
51.50	Top of spur, projects S. Descend over broken sandstone ledges.
61.00	Bottom of ravine, 300 ft. deep, course N.W. Ascend abruptly over broken sandstone ledges bearing N.W. and S.E.
69.00	Top of rocky spur, projecting N.W. Descend abruptly over sandstone ledges bearing N. and S.

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 2 W., continued.

CHAINS

Difference bet. measurement of 80.00 chs. by two sets of chainmen is 20 lks., position of middle point

By 1st. set, 80.10 chs.

By 2nd. set, 79.90 chs., the mean of which is N. 068 lks. from the tangent.

80.00

Falls on the smooth surface of a sandstone ledge,

I cut a cross, X, at exact point for stan. cor. of secs.

33 and 34, marked S.C. on N., with 3 grooves on E. and W.

of cross, from which

A pinon 12 ins. diam., bears N. 23° W., 28 lks. dist.,

marked T. 40 S. R. 2 W. S. 33 B. T.

No other trees within limits, and raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor.

Pits impracticable.

Land mountainous.

Soil, rocky 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.00

October 12, 1902.

October 13: At 8 a.m., 1.m.t., I set off 37° 17' N. on lat. arc; 7° 33' N. on decl. arc; and determine a true meridian with the solar at the stan. cor. of secs. 33 and 34.

Thence I run

S. 89° 57' W., on the tangent, S. of sec. 33.

Over sandstone ledges bearing N. and S., descend.

3.00

Spring branch, 2 lks. wide, in canon 400 ft. deep, course N.E.

Ascend.

6.00

Top of spur, projects S.

Descend.

7.50

Spring branch, 2 lks. wide, in same canon, course S.E.

Ascend.

10.00

Top of spur, projects N.

Descend.

13.00

Spring branch, 2 lks. wide, in same canon, course N.E.

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 2 W., continued.

CHAINS	
20.00	<p>Begin abrupt ascent over broken sandstone ledges, bearing N. and S.</p> <p>Top of spur, projects S.E.</p> <p>Descend.</p>
32.00	<p>Bottom of ravine, 200 ft. deep, course S.E.</p> <p>Ascend.</p>
40.00	<p>Difference bet. measurement of 40.00 chs. by two sets of chainmen, is 16 lks., position of middle point</p> <p>By 1st. set, 40.08 chs.,</p> <p>By 2nd. set, 39.92 chs., the mean of which is N. $9\frac{1}{4}$ lks. of the tangent.</p> <p>Set a sandstone 16x12x8 ins., 11 ins. in the ground, for stan. $\frac{1}{4}$ sec. cor., marked S.C. $\frac{1}{4}$ S. on N. face, from which</p> <p>A cedar 8 ins. diam., bears N. 83° E., 23 lks. dist., marked $\frac{1}{4}$ S. 33 B.C. B.T.</p> <p>A cedar 14 lks. dist., bears N. 45° W., 27 lks. dist., marked $\frac{1}{4}$ S. 33 B.C. B.T.</p>
52.60	<p>Top of spur, projects S.</p> <p>Descend.</p>
67.75	<p>Bottom of ravine 150 ft. deep, course S.E.</p> <p>Ascend.</p>
80.00	<p>Difference bet. measurement of 80.00 chs. by two sets of chainmen, is 14 lks., position of middle point</p> <p>By 1st. set, 79.93 chs.</p> <p>By 2nd. set, 80.07 chs., the mean of which is</p> <p>N. 12 lks. from the tangent.</p> <p>Set a sandstone 24x12x6 ins., 18 ins. in the ground, for stan. cor. of secs. 32 and 33, marked S.C. on N., with 2 grooves on W. and 4 grooves on E. faces, from which</p> <p>A pinon 6 ins. diam., bears N. 85° E., 80 lks. dist., marked T. 40 S. R. 2 W. S. 33 B.T.</p> <p>A cedar 10 ins. diam., bears N. 8° 30' W., 87 lks. dist., marked T. 40 S. R. 2 W. S. 32 B.T.</p> <p>Land mountainous.</p> <p>Soil, rocky 3rd. and 4th. rate.</p>

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 2 W., continued.

CHAINS

Timber, scattering cedar and pinon.

Mountainous land on 80.00 chs.

October 13: At this cor. I set off $7^{\circ} 37' S.$ on decl. arc; and at 11h.46m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ} 17' N.$

$S. 89^{\circ} 57' W.$, on the tangent, S. of sec. 32.

Ascend through dense artemisia and scattering cedar and pinon timber.

8.30 Top of ridge, bears N.E. and S.W.

Descend.

19.75 Bottom of ravine, 150 ft. deep, course N.

Ascend.

29.00 Top of spur, projects N.

Descend.

39.00 Bottom of ravine, 150 ft. deep, course N.E.

Ascend.

Difference bet. measurement of 40.00 chs. by two sets of chainmen is 12 lks., position of middle point

By 1st. set, 40.06 chs.,

By 2nd. set, 39.94 chs., the mean of which is

40.00 N. $.15\frac{1}{4}$ lks. from the tangent.

Set a sandstone $14 \times 14 \times 6$ ins., 10 ins. in the ground, for stan. $\frac{1}{4}$ sec. cor., marked S.C. $\frac{1}{4}$ S. on W. face, from which

A pinon 10 ins. diam., bears $N. 46^{\circ} W.$, 88 lks. dist., marked $\frac{1}{4}$ S. 32 S.C. *BZ*

A cedar 8 ins. diam., bears $N. 28^{\circ} E.$, 32 lks. dist., marked $\frac{1}{4}$ S. 32 S.C. *BZ*

46.00 Top of spur, projects N.E.

Descend.

54.00 Bottom of ravine, 150 ft. deep, course N.E.

Ascend.

65.00 Top of ridge, bears N.E. and S.W.

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 2 W., continued.

CHAINS

From this point, the top of an acute sandstone butte, "Mollie's Nipple" a U.S. Geological triangulation station Latitude $37^{\circ}16'12''$ N., Longitude $112^{\circ}05'23''$ W., bears S. $16^{\circ}41'$ W.

Descend.

Difference bet. measurement of 80.00 chs. by two sets of chainmen, is 12 lks., position of middle point

By 1st. set, 80.06 chs.

By 2nd. set, 79.94 chs., the mean of which is

80.00 N. 19 lks. from the tangent.

Set a sandstone $15 \times 10 \times 5$ ins., 10 ins. in the ground, for stan. cor. of secs. 31 and 32, marked S.C. on N., with 1 groove on W. and 5 grooves on E. faces, from which A pinon 6 ins. diam., bears N. 85° W., 30 lks. dist., marked T. 40 S. R. 2 W. S. 31 B. T.

No other trees within limits, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

Pits impracticable.

Land mountainous.

Soil, rocky 3rd. and 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land and dense undergrowth on 80.00 chs.

S. $89^{\circ} 56'$ W., on the tangent, S. of sec. 31.

Over rocky land, descend through scattering cedar and pinon timber.

12.75 Bottom of ravine, 150 ft. deep, course, N.

Ascend.

Difference bet. measurement of 40.00 chs. by two sets of chainmen is 8 lks., position of middle point,

By 1st. set, 40.04 chs., By 2nd. set 39.96 chs.,

the mean of which is

40.00 N. 22.75 lks. of the tangent.

EIGHTH STANDARD PARALLEL SOUTH, THRO: R. 2 W., concluded.

CHAINS

- Set a cedar post, 3ft. long, 3 ins. sq., with marked stone, 24 ins. in the ground for stan. $\frac{1}{4}$ sec. cor., marked S.C. $\frac{1}{4}$ S. 31 on N. face, dig pits, 18x18x12 ins., E and W. of post, 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
- 44.50 Top of ridge, bears N. and S.
Begin abrupt descent.
- 75.00 Foot of abrupt descent, bears N.E. and S.W.
Leave timber.
Begin gradual descent over sandy land.
- 80.00 N. 27 lks. from the tangent.
Set a sandstone 36x8x6 ins., 27 ins. in the ground, for Standard cor. to Tp. 40 S., R. 2 and 3 W., marked S.C. 40 S. on N., 2 W on E., and 3 W on W. face, with 6 grooves on N., E. and W. faces; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
Pits impracticable.
From this cor. the top of "Mollie's Nipple" a U. S. Geological Triangulation Station, bears S. 50° 55' E.
Land mountainous.
Soil, sandy and rocky 3rd. and 4th. rate.
Timber, scattering cedar and pinon.
Mountainous land on 75.00 chs.

October 13, 1902.

For general description, see book of subdivisions of T. 40 S., R. 2 W.

For table of latitude and departures, see Boundaries of T. 40 S., R. 2 W.

Harvey L. Kist

U. S. DEPUTY SURVEYOR

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____ showing the respective capacities in which they acted:

For final affidavit see book O. H. 405. P. 11.

- _____, Chairman.
_____, Chairman.
_____, Moundman.
_____, Moundman.
_____, Arman.
_____, Arman.
_____, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____, United States Deputy Surveyor, in surveying all those parts or portions of the _____ of the _____ meridian, _____ of _____, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for _____

For final affidavit see book O. H. 405. P. 11.

- _____, Chairman.
_____, Chairman.
_____, Moundman.
_____, Moundman.
_____, Arman.
_____, Arman.
_____, Flagman.

Subscribed and sworn to before me this _____ day of _____, 189 _____ }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____ United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____ United States Surveyor General for _____ day of _____, 18__ I have well, lawfully, and truly, for my said proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

_____ meridian, in the _____ and _____ said lands represented on the foregoing field notes as having been surveyed by me, and under my direction, and I do further and well swear that all the corners of said survey have been established and properly marked in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the said notes, and that the foregoing are the original field notes of said survey, and should any hereafter be detected, I will incur the penalty of perjury under the provisions of an Act of Congress approved August 8, 1848.

Handwritten signature: Mark O. ...

Subscribed by said _____ and sworn to before me
 this _____ day of _____, 18__

OOOOOO
 O STALE O
 OOOOOO

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Handwritten signature: Mark O. ...

The foregoing field notes of the survey of *The High School Grounds*
located South through North West of the
South Gate Basin & Precincts, etc.

executed by _____ *Charles D. Hunt*
 under his contract No. *261*, dated *January 2, 1874*, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Handwritten signature: Charles H. ...
 United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____ has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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BOOK A-297

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FIELD NOTES

OF THE SURVEY OF THE

E-A-S-T- R-O-U-N-D-A-R-Y-

of

Township No. 41 South, Range No. 2 West.

Of the Salt Lake Base and Meridian,

in the state of Utah.

AS SURVEYED BY

Harvey D. Heist, United States Deputy Surveyor,

Under his Contract No. 251, dated February 12, 1902., 189

Survey commenced October 10, 1902., 189

Survey completed October 11, 1902., 189

E. Dwyer - 1-45-88

NAMES AND DUTIES OF ASSISTANTS.

William Walquist Chainman

Earl V. Woolley "

Arthur N. Munger Moundman

Oley Sorenson "

Harry Payne Axman

Harry Payne Flagman

Volume

#

R0297

BOOK A-297

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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

We, William Walquist and Earl V. Woolley

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

N. & W. Bdy. T. 40 S., R. 2 & 4 W., E. Bdy. T. 40 S., R. 2 W. & E. Bdy. T. 41 S., R. 2 W. of the Salt Lake Base and Meridian, Utah.

William Walquist, Chairman. Earl V. Woolley, Chairman.

Subscribed and sworn to before me this 10th. day of October, 1902, 189



Harvey L. Geist, U.S. Deputy Surveyor

We, Arthur N. Munger and Oley Sorenson

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

N. & W. Bdy. T. 40 S., R. 2 & 4 W., E. Bdy. T. 40 S., R. 2 W., & E. Bdy. T. 41 S., R. 2 W. of the Salt Lake Base and Meridian, Utah.

Arthur N. Munger, Moundman. Oley Sorenson, Moundman.

Subscribed and sworn to before me this 10th. day of October, 1902, 189



Harvey L. Geist, U.S. Deputy Surveyor

We, I, Harry Payne

do solemnly swear that I will well and truly perform the duties of axman in the establishment of corners and other duties, according to instructions given me to the best of my skill and ability, in the survey of

N. & W. Bdy. T. 40 S., R. 2 & 4 W., E. Bdy. T. 40 S., R. 2 W., & E. Bdy. T. 41 S., R. 2 W. of the Salt Lake Base and Meridian, Utah.

Harry Payne, Axman.

Subscribed and sworn to before me this 10th. day of October, 1902, 189



Harvey L. Geist, U.S. Deputy Surveyor

I, Harry Payne, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the

survey of N. & W. Bdy. T. 40 S., R. 2 & 4 W., E. Bdy. T. 40 S., R. 2 W. & E. Bdy. T. 41 S., R. 2 W. of the Salt Lake Base and Meridian, Utah.

Harry Payne, Flagman.

Subscribed and sworn to before me this 10th. day of October, 1902, 189



Harvey L. Geist, U.S. Deputy Surveyor

EAST BOUNDARY OF T.41 S.,R.2.W.

CHAINS.

Survey commenced, October 10, 1902 and executed with the instrument described in book "H" of this survey.

I begin at the temp. Closing Cor. for Tp. 41 S. Rs. 1 and 2 W., which I established, October 10, 1902, Latitude $37^{\circ} 17' 18''$ N., Longitude $112^{\circ} 00' 19''$ W.

In order to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a true meridian determined by observations on Polaris, I proceed as follows:

At 4 p.m., l.m.t., I set off $37^{\circ} 17'$ N. on lat. arc; $6^{\circ} 23'$ S. on decl. arc; and determine a true meridian with the solar, and mark the meridian by a cross on a stone firmly set in the ground, 5 chs. N. of the instrument.

October 10, 1902.

October 11: At 5h. 59m., a.m., l.m.t., I observe Polaris at western elongation, in accordance with instructions in the Manual, and mark the line thus determined by a tack driven in a wooden peg set in the ground, 5 chs. N. of my station.

At 7 a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ} 31'$ to the east and mark the meridian thus determined by cutting a small groove in the stone set last evening, on which the meridian falls 0.2 ins. west of the mark determined by the solar.

At 8 a.m., l.m.t., I set off $37^{\circ} 17'$ N. on lat. arc; $6^{\circ} 47'$ S. on decl. arc; and mark the true meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.3 ins. west of the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations, defines positions for meridians, about $0' 11''$ east, and $0' 16''$ west of the meridian established by the

EAST BOUNDARY OF T.41 S., R.2 W. continued.

CHAINS

Polaris observation; therefore, I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the meridian, at 8 a.m., is N. $15^{\circ} 30' W.$; the angle thus determined gives the mag. decl. $15^{\circ} 30'$ east.

From the temp. closing cor. for Tp. 41 S., Rs. 1 and 2 W. established by me October 10, 1902.

I run

South, on a random line, along the E. Bdy. of T. 41 S., R. 2 W., setting temp. $\frac{1}{4}$ sec. and sec. cors. at intervals of 40.00 chs.; and at 125.88 chs., intersect the $\frac{1}{4}$ sec. cor. bet. secs. 7 and 12, which is a sandstone $10 \times 10 \times 10$ ins. above ground, marked and witnessed as described by the surveyor general.

Thence I run

From the $\frac{1}{4}$ sec. cor. bet. secs. 7 and 12,

North, bet. secs. 7 and 12.

Over sandy land, ascend.

.70 Begin ascent over broken sandstone ledges, along steep west slope, through scattering cedar and pinon timber.

40.00 Set a sandstone $15 \times 12 \times 5$ ins., 10 ins. in the ground, for cor. of secs 1-6-7 and 12, marked with 1 notch on N. and 5 notches on S. edges, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

This cor. is 500 ft. above the $\frac{1}{4}$ sec. cor.

Land mountainous.

Soil rocky, 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land on 40.00 chs.

North, bet. secs. 1 and 6.

Over broken sandstone ledges, ascend along steep west slope, through scattering cedar and pinon timber.

EAST BOUNDARY OF T.41 S., R.2 W., concluded.

CHAINS

- 40.00 Set a sandstone 18x14x4 ins., 12 ins. in the ground,
for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
A cedar 18 ins. diam., bears S. 81° W., 16 lks. dist.,
marked $\frac{1}{4}$ S. 1 B.T.
A pinon 9 ins. diam. bears S. 27° E., 25 lks. dist.,
marked $\frac{1}{4}$ S. 6 B.T.
- 41.00 Top of spur, projects S.W.
800 ft. above sec. cor.
Descend.
- 63.50 Head of ravine course S.W.
Ascend.
- 68.00 Top of spur, projects S.W.
Descend.
- 85.88 Intersect temp. closing cor. for Tp. 41 S. R. 1 and 2 W.
Point for cor. falls on the smooth surface of a sandstone
ledge, I cut a cross, X, at exact point for closing cor.
for Tp. 41 S. Rs. 1 and 2 W., marked C.C. on S., and 6
grooves on S., E. and W. sides of cross, from which
A pinon 10 ins. diam., bears S. 38° E., 22 lks. dist.,
marked T. 41 S. R. 1 W. S. 6 B.T.
A pinon 6 ins. diam., bears S. 39° 30' W., 34 lks. dist.,
marked T. 41 S. R. 2 W. S. 1 B.T.
Land mountainous.
Soil, rocky 4th. rate.
Timber, scattering cedar and pinon.
Mountainous land on 85.88 chs.

October 11, 1902.



U.S. DEPUTY SURVEYOR.

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PAGE

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____

_____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____

showing the respective capacities in which they acted: _____

For final affidavits see book Q-11

_____, Chairman.

_____, Chairman.

_____, Moundman.

_____, Moundman.

_____, Arman.

_____, Arman.

_____, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____

_____, United States Deputy Surveyor, in surveying all

those parts or portions of the _____

_____ meridian, _____ of _____, which are represented

in the foregoing field notes as having been surveyed by him and under his direction; and that said survey was in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor

General for _____

For final affidavits see book Q-11

_____, Chairman.

_____, Chairman.

_____, Moundman.

_____, Moundman.

_____, Arman.

_____, Arman.

_____, Flagman.

Subscribed and sworn to before me this _____ }
day of _____, 189 _____ }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____ United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____ United States Surveyor General for _____, bearing date of the _____ day of _____, 189____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____ of the _____ meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Laundry
of the East Boundary of
the Township of Smith Range West of the Salt Lake
Base & Meridian, Utah

United States Deputy Surveyor

Subscribed by said _____, and sworn to before me }
 this _____ day of _____, 189____



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

The foregoing field notes of the survey of *the East Boundary of*
Township of Smith Range West of the Salt Lake
Base & Meridian, Utah

executed by _____
 under his contract No. *251*, dated *February 12, 1902*, 189____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward Henderson
 United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____ has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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BOOK A-297

27

FIELD NOTES

OF THE SURVEY OF THE

E-A-S-T W-E-S-T and N-O-R-T-H

B-O-U-N-D-A-R-I-E-S

of

Township No. 40 South, Range No. 2 West.

Of the Salt Lake Base and Meridian,

in the state of Utah.

AS SURVEYED BY

Harvey D. Heist, United States Deputy Surveyor,

Under his Contract No. 251, dated February 12, 1902, 189

Survey commenced October 14, 1902, 189

Survey completed October 16, 1902, 189

6-191

E. Reddy - High	3-00-00	✓
N- " "	2-79-45	✓
W- " "	4-76-00	✓
" " "		1-03-00 ✓

17.00000

NAMES AND DUTIES OF ASSISTANTS.

William Walqvist

Chairman

Earl V. Woolley

"

Arthur N. Munger

Moundman

Olev Sorenson

"

Harry Payne

Arman

Harry Payne

Flagman

In preliminary affidavit, Section J, 4-15-1919

BOOK A-297

INDEX DIAGRAM.

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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, _____ and _____

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of _____

_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ }
day of _____, 189 _____ }



WE, _____ and _____

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of _____

_____, *Moundman.*

_____, *Moundman.*

Subscribed and sworn to before me this _____ }
day of _____, 189 _____ }



WE, _____ and _____

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of _____

_____, *Axman.*

_____, *Axman.*

Subscribed and sworn to before me this _____ }
day of _____, 189 _____ }



I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of _____

_____, *Flagman.*

Subscribed and sworn to before me this _____ }
day of _____, 189 _____ }



EAST BOUNDARY OF T.40 S. R.2 W.,

CHAINS

Survey commenced, October 14, 1902, and executed with the instrument described in book "H" of this survey. I know the instrument to be in adjustment from recent observations made October 10 and 11, at the closing of cor. for Tp. 40 S. Rs. 1 and 2 W., and recorded in book "J" of this survey.

At the Standard Cor. to Tp. 40 S. Rs. 1 and 2 W., in approximate latitude $37^{\circ}17'18''$ N., longitude $112^{\circ}00'19''$ W., heretofore described.

At 8 a.m., l.m.t., I set off $37^{\circ}17'$ N. on lat. arc; $7^{\circ}55'$ S. on decl. arc; and determine a true meridian with the solar.

Thence I run

North, bet. secs. 31 and 36.

Over rocky land, ascend through scattering cedar and pinon timber.

- 6.00 Top of rocky spur, projects W.
Begin abrupt descent.
- 34.00 Bottom of canon, 200 ft. deep, course S.W.
Begin abrupt ascent.
- 40.00 Set a sandstone $16 \times 9 \times 9$ ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
Pits impracticable.
- 63.00 Top of rocky ridge, bears N.E. and S.W.
Begin abrupt descent.
- 80.00 Set a sandstone $18 \times 10 \times 10$ ins., 12 ins. in the ground, for cor. of secs. 25-30-31 and 36, marked with 1 notch on S. and 5 notches on N. edges, from which
A pinon 6 ins. diam., bears N. 76° W., 32 lks. dist., marked T.40 S. R.2 W. S. 25 B.T.
No other trees within limits, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
Pits impracticable.
Land mountainous.

EAST BOUNDARY OF T.40 S. R.2 W., continued.

CHAINS

Soil, rocky 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.00 chs.

North, bet. secs. 25 and 30.

Over rocky land, descend through scattering cedar and pinon timber.

13.50 Bottom of ravine 200ft. deep, course S.W.

Ascend over broken sandstone ledges.

40.00 Set a sandstone 20x8x6 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

46.50 Top of ridge, bears N.E. and S.W.

Begin abrupt descent.

74.00 Bottom of canon, 300 ft. deep, course S.W.

Begin abrupt ascent.

80.00 Set a sandstone 18x10x8 ins., 12 ins. in the ground, for cor. of secs. 19-24-25 and 30, marked with 2 notches on S. and 4 notches on N. edges, from which

A cedar 4 ins. diam., bears N. 16° E., 37 lks. dist., marked T.40 S. R.1 W. S.19 B.T.

No other trees within limits, and raise a mound of stone 2 ft. base $1\frac{1}{2}$ ft. high W. of cor. Pits impracticable. Land mountainous.

Soil rocky; 3rd. rate.

Timber cedar and pinon.

Mountainous land 80.00 chs.

October 14: At this cor. I set off 8° 'S. on decl. arc, and at 11 h. 46 m. a. m. l. m. t. observe the sun on the meridian, the resulting lat. is $37^{\circ}19'$ N.

North, bet. secs. 19 and 24.

Over rocky land, ascend through scattering cedar and pinon timber.

6.50 Top of rocky spur, projects S.W.

Begin abrupt descent.

EAST BOUNDARY OF T.40 S. R.2 W., continued.

CHAINS	
18.75	Bottom of ravine, 150 ft. deep, course S.W. Ascend.
27.00	Top of ridge, bears N.E. and S.W. Descend.
40.00	Bottom of ravine, 200 ft. deep, course S.W. Set a sandstone 15x12x8 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Begin abrupt ascent.
80.00	Top of rocky spur, projects S.W. Descend.
78.50	Bottom of ravine, 200 ft. deep, course S.W. Ascend.
80.00	Set a sandstone 18x10x10 ins., 12 ins. in the ground, for cor. of secs. 13-18-19 and 24, marked with 3 notches on N. and S. edges, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land mountainous. Soil, rocky 4th. rate. Timber, a few scattering cedars. Mountainous land on 80.00 chs.

Note: On account of the land in the N.E. portion of this township being badly broken and utterly worthless, I abandon the line here.

October 14, 1902

WEST BOUNDARY OF T.40 S. R.2 W.,

CHAINS

October 15: At the Standard Corner to Tp.40 S.,Rs.2 and 3 W.,heretofore described.

At 8.a.m.,1.m.t.,I set off $37^{\circ}17'N$.on lat.arc; $8^{\circ}19'S$.on decl.arc;and determine a true meridian with the solar,

Thence I run,along the W.Bdy.of the Tp.

× North,bet.secs.31 and 36.

Over sandy land,descend gradually.

14.00 Wash,10 ft.wide,5 ft.deep,course N.E.

40.00 Set a cedar post,3 ft.long,4 ind.sq.,with marked stone,24 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ S.36 on W.and 31 on E.face,dig pits 18x18x12 ins., N.and S.of post,3 ft.dist.,and raise a mound of earth $3\frac{1}{2}$ ft.base, $1\frac{1}{2}$ ft.high,W.of cor.

46.00 Road,bears N.E.and S.W.

76.50 Road,bears N.E.and S.W.

80.00 Set a sandstone 15x12x8 ins.,10 ins.in the ground, for cor.of secs.25-30-31 and 36;marked with 1 notch on S.and 5 notches on N.edges,and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.

Pits impracticable.

Land,nearly level.

Soil,sandy loam,2nd.rate.

No timber.

North,bet.secs.25 and 30.

Over rolling land,descend.

3.50 Enter dense artemisia and grease wood.

14.00 Ravine,50 ft.deep,course E.

Ascend.

28.00 Top of spur,projects E.

Descend.

40.00 Set a cedar post,3 ft.long,4 ins.sq.,with marked stone 24 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ S.25 on

WEST BOUNDARY OF T.40 S. R.2 W., continued.

CHAINS

W. and 30 on E. face, dig pits 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

From this cor. the house belonging to Abner W. Potter bears S. $54^{\circ}20'$ E.

54.00 Small hollow, drains E.

Ascend.

78.00 Low spur, projects E.

Descend.

80.00 Set a sandstone 16x8x6 ins., 11 ins. in the ground, for cor. to secs. 19-24-25 and 30, marked 2 notches on S. and 4 notches on N. edges, from which,

A lone cedar 12 ins. diam., bears S. $18^{\circ}45'$ W., 1.52 chs. dist. marked T.40 S.R.3 W., S.25 B.T.

No other trees within limits, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Land rolling.

Soil sandy loam, 2nd. rate.

No timber.

Dense undergrowth on 76.50 chs.

North, bet. secs. 19 and 24.

Over sandy land, descend gradually, through dense brush.

37.75 Road, bears N.W. and S.E., ascend gradually.

40.00 Set a cedar post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ S. 24 on W. face, 19 on E. face; dig pits 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

80.00 Set a sandstone 16x12x4 ins., 11 ins. in the ground, for cor. of secs. 13-18-19 and 24, marked with 3 notches on N. and S. edges, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Land, rolling.

WEST BOUNDARY OF T.40 S., R.2 W., continued.

CHAINS	
	Soil, sandy 3rd. rate. No timber. Dense undergrowth on 80.00 chs.
	North, bet. secs. 13 and 18.
	Over rolling land, ascend through dense artemisia and grease wood.
9.00	Enter scattering cedar and pinon timber.
27.00	Top of spur, projects E. Descend.
40.00	Set a sandstone 16x10x4 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which An Oak 6 ins. diam., bears S. 67° W., 90 lks. dist., marked $\frac{1}{4}$ S. 13 B.T. No other trees within limits, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
46.50	Hollow 50 ft. deep, drains E. Ascend.
57.00	Begin ascent along top of spur, projecting S.
70.00	Sandstone ledges, 50 ft. high, bear N.E. and S.W. Ascend.
80.00	Set a sandstone 16x10x4 ins., 11 ins. in the ground, for cor. of secs. 7-12-13 and 18, marked with 4 notches on S. and 2 notches on N. edges, from which A pine 12 ins. diam., bears N. 85° E., 1.14 chs. dist., marked T.40 S. R.2 W. S.7 B.T. A pinon 8 ins. diam., bears N. 49° W., 1.00 ch. dist., marked T.40 S. R.3 W. S.12 B.T. No other trees within limits, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land mountainous. Soil rocky; 3rd. rate. Timber cedar and pinon. Mountainous land 80.00 chs. October 15: At this cor. I set off 8° 22' S. on decl. arc; and at 11h. 46m., a.m., l.m.t., observe the sun

WEST BOUNDARY OF T.40 S. R.2 W., continued.

CHAINS

on the meridian, the resulting lat, is $37^{\circ}21'N$.

North, bet. secs. 7 and 12.

Over rocky land, ascend through dense artemisia, grease-wood and scattering cedar and pinon timber.

.60 Top of spur, projects S.E.

Descend.

4.00 Hollow, 50 ft. deep, course E.

Ascend.

40.00 Set a sandstone 16x14x9 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which a pinon 9 ins. diam., bears N. $10^{\circ}E$., 70 lks. dist., marked $\frac{1}{4}$ S. 7 B.T.

A cedar 3 ins. diam., bears N. $25^{\circ}W$., 22 lks. dist., marked $\frac{1}{4}$ S. 12 B.T.

43.00 Foot of sandstone ledges bearing N.E. and S.W.

Begin abrupt ascent.

50.50 Top of spur, projects SW.

Begin abrupt descent.

57.00 Bottom of ravine, 250 ft. deep, course S.W.

Ascend over broken sandstone ledges.

80.00 Set a sandstone 18x14x8 ins., 12 ins. in the ground, for cor. of secs. 1-6-7 and 12, marked with 5 notches on S. and 1 notch on N. edge, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Land mountainous.

Soil rocky 3rd. and 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land and dense undergrowth 80.00 chs.

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38

WEST BOUNDARY OF T.40 S.,R.2 W.,concluded.

CHAINS

North,bet.secs.1 and 6.

Over rocky land,ascend through scattering cedar and pinon timber.

24.00 Foot of sandstone ledges,200 ft.high.

Begin abrupt ascent.

33.00 Top of spur,400 ft.above sec.cor.,projects W.

Descend over broken sandstone ledges.

40.00 Set a sandstone 15x10x10 ins.,10 ins.in the ground, for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on W.face,and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.

Pits impracticable.

76.00 Begin abrupt descent over sandstone ledges bearing N.W.and S.E.

79.00 Foot of ledges bear N.W.and S.E.

Descend over boulders.

80.00 Set a sandstone 20x15x12 ins.,15 ins.in the ground, for cor.to Tps.39 and 40 S.,Rs.2 and 3.W.,marked

4I S.on N.E.,2 W.on S.E.,40S'on S.W.,and

3 W.on N.W.face;with 6 notches on N.S.,E.and W.edges, and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high,S.of cor.

Pits impracticable.

Land mountainous.

Soil,rocky 4th.rate.

Timber,scattering cedar and pinon.

Mountainous land on 80.00 chs.

October 15,1902

NORTH BOUNDARY OF T.40 S.,R.2 W.

October 16: At 8 a.m.,l.m.t.,I set off $37^{\circ} 22' N.$ on lat.arc; $8^{\circ} 39' S.$ on decl.arc;and determine a true meridian with the solar,at the cor.to Tps.39 and 40 S.,Rs.2 and 3 W.

NORTH BOUNDARY OF T.40 S., R.2 W., continued.

CHAINS	
	The cor. to Tps. 39 and 40 S., Rs. 1 and 2, not being set, and knowing I cannot survey the entire N. Bdy. of this Tp. on account of broken land, I run East, on a true line, bet. secs. 6 and 31. Over rocky land, descend through scattering cedar and pinon timber.
8.00	Deer Creek, 2 lks. wide, in bottom of canon 150 ft. deep, course S.E. Ascend.
14.00	Top of spur, projects S. Descend.
19.75	Deer Creek, 2 lks. wide, in bottom of canon 150 ft. deep, course N.E. Ascend.
39.45	Allowing for convergency, Set a sandstone 14x12x6 ins., 10 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which A pinon 4 ins. diam., bears N. 28° E., 20 lks. dist., marked $\frac{1}{4}$ S. 31 B.T. A pinon 6 ins. diam., bears S. 73° W., 80 lks. dist., marked $\frac{1}{4}$ S. 6 B.T.
42.00	Top of ridge, bears N.E. and S.W. Descend.
74.00	Bottom of canon, 200 ft. dep, course N.E. Ascend.
79.45	Set a sandstone 18x12x6 ins., 12 ins. in the ground, for cor. of secs. 5-6-31 and 32, marked with 1 notch on W. and 5 notches on E. edges, from which A cedar 24 ins. diam., bears N. 53° 30' E., 58 lks. dist., marked T. 39 S. R. 2 W. S. 32 B.T. A pinon 12 ins. diam., bears S. 71° E., 49 lks. dist., marked T. 40 S. R. 2 W. S. 5 B.T. A pinon 20 ins. diam., bears S. 31° 30' W., 77 lks. dist., marked T. 40 S. R. 2 W. S. 6 B.T.

NORTH BOUNDARY OF T.40 S., R.2 W., continued.

CHAINS

A pinon 14 ins. diam., bears N. 88° W., 93 lks. dist.,
marked T.39 S. R.2 W. S.31 B.T.

Land mountainous.

Soil, rocky 3rd. and 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land on 79.45 chs.

East, bet. secs. 5 and 32.

Over rocky land, ascend through dense artemisia and
scattering cedar and pinon timber.

4.00 Top of ridge, bears N. and S.

Descend.

11.50 Bottom of ravine, 200 ft. deep, course N.

Ascend.

13.00 Top of spur, projects N.

Begin abrupt descent.

40.00 Point for $\frac{1}{4}$ sec. cor. falls on steep slope, subject
to slides, I do not set cor.

44.00 Bottom of canon, 300 ft. deep, course N.E.

Ascend over rocky land.

46.00 Point for witness cor. falls on the smooth surface of
a sandstone ledge; I cut a cross at exact point for
witness cor. to $\frac{1}{4}$ sec. cor., marked W.C. $\frac{1}{4}$ on N. side
of cross, from which

A pine 8 ins. diam., bears S., 37 lks. dist., marked
W.C. $\frac{1}{4}$ S.5 B.T.

A pinon 4 ins. diam., bears N. 5° E., 52 lks. dist., marked
W.C. $\frac{1}{4}$ S.32 B.T.

65.50 Top of ridge, bears N.E. and S.W.

Descend.

80.00 Set a sandstone 24x6x6 ins., 18 ins. in the ground, for
cor. of secs. 4-5-32 and 33, marked with 2 notches on
W., and 4 notches on E. edges, from which

A cedar 14 ins. diam., bears N. 87° E., 20 lks. dist.,
marked T.39 S. R.2 W. S.33 B.T.

NORTH BOUNDARY OF T1 40 S. R.2 W., continued

CHAINS	
	A pinon 14 ins.diam., bears S.S.0° 30'E., 49 lks.dist., marked T.40 S. R.2 W. S.4 B.T.
	A pinon 15 ins.diam., bears S.83°W., 43 lks.dist., marked T.40 S. R.2 W. S.5 B.T.
	A pinon 8 ins.diam., bears N.43° W., 1.03 chs.dist., marked T.39 S. R.2 W. S.32 B.T.
	Land mountainous.
	Soil, rocky 3rd. and 4th. rate.
	Timber, scattering cedar and pinon.
	Mountainous land and dense undergrowth 80.00 chs.
	October 16; At this cor. I set off 8°44' S. on decl. arc; and observe the sun on the meridian, at 11h.46m. a.m., 1.m.t., the resulting lat. is 37°22'N.
	—————
	Fast, bet. secs. 4 and 33.
	Over rocky land, descend through dense artemisia and scattering cedar and pinon timber.
32.00	Bottom of ravine, 150 ft. deep, course N.E.
	Ascend.
40.00	Top of spur, projects N.
	Set a sandstone 15x10x8 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
	Pits impracticable.
	Descend.
46.50	Deer Creek, 4 lks. wide, in bottom of canon, 200 ft. deep, course S.E.
	Begin abrupt ascent.
71.00	Top of ridge, bears N.W. and S.E.
	Descend.
80.00	Set a sandstone 18x10x10 ins., 12 ins. in the ground, for cor. of secs. 3-4-33 and 34, marked with 3 notches on E. and W. edges, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

NORTH BOUNDARY OF T.40 S., R.2 W., concluded.

CHAINS

Land mountainous.
Soil, rocky 3rd. and 4th. rate.
Timber, scattering cedar and pinon.
Mountainous land and dense undergrowth 80.00 chs.

Note: I abandon line here, on account of broken country.
October 16, 1902.

BOUNDARIES OF T.40 S., R.2 W.

Latitudes, departures and closing errors.

Line Designated	True Bearing	Distance	Latitudes		Departures	
			N.	S.	E.	W.
3th. Stan. Par. S.	West	- 480.00 -	-	-	-	- 480.00
W. Bdy. T.40 S.						
R.2 W.	North	- 480.00 -	480.00	-	-	-
W. Bdy., T.40 S.						
R.2 W.	East	- 239.45 -	-	-	- 239.45	-
Bet. secs. 3 & 4	S.0°7'E.	- 80.10 -	-	80.10	.16	-
" " 9 & 10	S.0°2'E.	- 80.00 -	-	80.00	.05	-
" " 15 & 16	S.0°2'E.	- 80.00 -	-	80.00	.05	-
" " 15 & 22	S.89°58'E.	- 80.14 -	-	.05	80.14	-
" " 14 & 23	N.89°58'E.	- 80.08 -	.05	-	80.08	-
" " 13 & 24	N.89°59'E.	- 80.04 -	.03	-	80.04	-
E. Bdy. T.40 S.						
R.2 W.	South	- 240.00 -	-	- 240.00	-	-
Convergency					.55	
Totals			480.08	480.15	480.52	480.00
Error in lat. and dep.				480.08	480.00	
				.07	.52	

For general description, see book of subdivisions of T.40 S., R.2 W.

Harvey L. Geist
U.S. DEPUTY SURVEYOR.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____

showing the respective capacities in which they acted: _____ Chainman. _____ Chainman. _____ Moundman. _____ Moundman. _____ Arman. _____ Arman. _____ Flagman.

For final affidavits see book R pp. 40-41

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____, United States Deputy Surveyor, in surveying all those parts or portions of the _____

_____ meridian, _____ of _____, which are represented the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for _____

_____ Chainman. _____ Chainman. _____ Moundman. _____ Moundman. _____ Arman. _____ Arman. _____ Flagman.

For final affidavits see book R pp. 40-41

described and sworn to before me this _____ day of _____, 189 _____



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

United States Deputy Surveyor do

solemnly swear that, in pursuance of a contract recorded in the public records of my State, bearing date of the

1891, I have well, lawfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General, the Manual of Surveying Instructions, and the laws of the

United States, arranged all the necessary portions of

of the which are represented in the original field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General; and that I have done all in the specific manner described in the field notes, and that the same are the work of my hands, and should any fraud be detected, I will suffer the penalties provided in an Act of Congress approved August 8, 1846.

United States Deputy Surveyor.

and sworn to before me



APPROVAL.

CHIEF OF THE UNITED STATES SURVEYOR GENERAL.

Walter H. Bell, by John S. ...
of the ...

Charles J. Hunt
United States Surveyor General

copies of the foregoing transcripts of the field notes of the above-mentioned surveys in ...

United States Surveyor General

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BOOK A-297

FILED
MAR 26 1903

47

W.H.B.

FIELD NOTES

OF THE SURVEY OF THE

S-U-B-D-I-V-I-S-I-O-N L-I-N-E-S

of

Township No. 40 South, Range No. 2 W.

Of the Salt Lake Base and Meridian,

in the state of Utah,

AS SURVEYED BY

Harvey D. Heist, United States Deputy Surveyor,

Under his Contract No. 351, dated February 12, 1902.

Survey commenced October 16, 1902, 189

Survey completed October 29, 1902, 189

*High - 47-51-13 ✓
28-94 ✓*

48.00 07

NAMES AND DUTIES OF ASSISTANTS.

William Walquist Chairman

George Wilson "

John Kitchen Moundman

Earl V. Woolley "

James Potter Axman

Oley Sorenson Flagman

BOOK A-297

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PRELIMINARY OATHS OF ASSISTANTS.

WE, William Walquist and George Wilson do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the Subdivisions of T.40 S., Rs. 2 and 4 W. of the Salt Lake Base and Meridian, Utah.

William Walquist, Chainman. George Wilson, Chainman.

Subscribed and sworn to before me this 16th day of October, 1902, 189

Harvey D. Heist U.S. Deputy Surveyor



WE, John Kitchen and Earl V. Woolley do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of the Subdivisions of T.40 S., Rs. 2 and 4 W. of the Salt Lake Base and Meridian, Utah,

John Kitchen, Moundman. Earl V. Woolley, Moundman.

Subscribed and sworn to before me this 16th day of October, 1902, 189

Harvey D. Heist U.S. Deputy Surveyor



WE, I, James Potter do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of the Subdivisions of T.40 S., Rs. 2 and 4 W. of the Salt Lake Base and Meridian, Utah.

James Potter, Axman.

Subscribed and sworn to before me this 16th day of October, 1902, 189

Harvey D. Heist U.S. Deputy Surveyor



I, Oley Sorenson do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of the Subdivisions of T.40 S., Rs. 2 and 4 W. of the Salt Lake Base and Meridian, Utah.

Oley Sorenson, Flagman.

Subscribed and sworn to before me this 16th day of October, 1902, 189

Harvey D. Heist U.S. Deputy Surveyor



SUBDIVISIONS OF T.40 S.,R.2 W.

CHAINS

Survey commenced, October 16, 1902, and executed with the instrument described in book "H" of this survey.

I begin at the stan. cor. of secs. 35 and 36, heretofore described, on the S. Bdy. of the Tp., in approximate Latitude $37^{\circ} 17' 18''$ N., Longitude $112^{\circ} 01' 24''$ W.

I examine and correct the adjustments of the transit, then to test the solar apparatus, by comparing the results of observations on the sun, made during a.m. and p.m. hours, with a true meridian determined by observations on Polaris, I proceed as follows:

At 4 p.m., l.m.t., I set off $37^{\circ} 17' N.$ on lat. arc; $8^{\circ} 47' S.$ on decl. arc; and mark the meridian thus determined with the solar, by a cross on a stone firmly set in the ground, 5 chs. N. of the instrument.

October, 16, 1902.

October 17:

At 5h. 35m., a.m., l.m.t., I observe Polaris at western elongation, in accordance with instructions in the Manual, and mark the line thus determined by a tack driven in a wooden plug set in the ground, 5 chs. N. of my station.

At 7 a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ} 31'$ to the east and mark the meridian thus determined, by cutting a small groove in the stone set last evening, on which the the meridian falls 0.2 ins. west of the mark determined by the solar.

At 8 a.m., l.m.t., I set off $37^{\circ} 17' N.$ on lat. arc; $9^{\circ} 02' S.$ on decl. arc; and mark the true meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.3 ins. west of the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations, defines positions for meridians, about $0' 11''$ east, and $0' 16''$ west of the meridian established by the Polaris observation; therefore, I conclude that the adjustments

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	
	of the instrument are satisfactory. The magnetic bearing of the true meridian at 8 a.m. is N.15° 30'W.; the angle thus determined gives the mean mag. decl. 15° 30' east. Thence I run N.0° 01'W., bet. secs. 35 and 36. Over rocky land, ascend through scattering cedar and pinon timber.
2.00	Top of spur, projects E. Descend.
12.00	Bottom of ravine, 100 ft. deep, course S.E. Ascend.
22.00	Top of ridge, bears N.E. and S.W. Descend.
29.00	Head of ravine, course N.W. Ascend.
38.50	Top of rocky spur, projects W. Descend over sandstone ledges.
40.00	Point for $\frac{1}{4}$ sec. cor. falls on the smooth surface of a sandstone ledge, I cut a cross at exact point for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. side of cross, from which A pinon 6 ins. diam., bears S.19°W., 50 lks. dist., marked $\frac{1}{4}$ S.35 B.T. A pinon 6 ins. diam., bears N.10°E., 53 lks. dist., marked $\frac{1}{4}$ S.36 B.T.
41.00	Head of ravine, course W. Ascend.
42.50	Top of sandstone spur, projects W. Descend.
53.00	Bottom of ravine, 200 ft. deep, course S.W. Ascend.
63.00	Top of ridge, bears E. and W. Descend abruptly over sandstone ledges.
75.25	Bottom of canon, 300 ft. deep, course W. Ascend abruptly over sandstone ledges.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	
80.00	<p>Point for sec.cor.falls on the smooth surface of a sandstone ledge,I cut a cross at exact point for cor. of secs.25-26-35 and 36,marked 1 groove on S.and E. sides of cross,from which</p> <p>A pinon 10 ins.diam.bears S.86°W.,39 lks.dist., marked T.40 S. R.2.W. S.35 B.T..</p> <p>A cedar 8 ins.diam.,bears N.38°W.,25 lks.dist., marked T.40 S. R.2 W. S.26 B.T.</p> <p>No other trees within limits,and raise a mound of stone 2 ft.base,1½ ft.high,W.of cor.</p> <p>Pits impracticable.</p> <p>Land mountainous.</p> <p>Soil rocky 3rd.and 4th.rate.</p> <p>Timber,scattering cedar and pinon.</p> <p>Mountainous land on 80.00 chs.</p>
<hr/> <p>East,on a random line,bet.secs.25 and 36.</p>	
40.00	Set temp.¼ sec.cor.
80.08	<p>Intersect E.Bdy.of Tp.,5 lks.S.of the cor.of secs. 25-30-31 and 36,heretofore described.</p> <p>Thence I run</p> <p style="padding-left: 100px;">S.89° 58'W.,on a true line,</p> <p style="padding-left: 100px;">Bet.secs.25 and 36.</p> <p>Over rocky land,descend through scattering cedar and pinon timber.</p>
10.00	<p>Bottom of ravine,200 ft.deep,course S.W.</p> <p>Begin abrupt ascent.</p>
37.00	<p>Top of rocky ridge,bears N.E.and S.W..</p> <p>Begin abrupt descent over broken sandstone ledges, bearing N.E.and S.W.</p>
40.04	<p>Set a sandstone 15x12x6 ins.,10 ins.in the ground, for ¼ sec.cor.,marked ¼ on N.face,and raise a mound of stone 2 ft.base,1½ ft.high,N.of cor.</p> <p>Pits impracticable.</p>

SUBDIVISIONS OF T.40 S.,R.2 W.,continued.

CHAINS

- 76.00 Bottom of canon,300 ft.deep,course S.W.
Begin abrupt ascent over sandstone ledges,bearing N.E.and S.W.
- 80.02 The cor.of secs.25-26-35 and 36.
Land mountainous.
Soil,rocky 3rd.and 4th.rate.
Timber,scattering cedar and pinon.
Mountainous land on 80.08 chs.
October 17: At this cor.I set off $9^{\circ}06' S.$ on decl.arc;
and at 11h.46m.,a.m.,1.m.t.,observe the sun on the meridian,the resulting lat.is $37^{\circ} 18' N.$

- $N.0^{\circ} 01' W.$,bet.secs.25 and 26.
- Ascend abruptly over sandstone ledges,bearing N.E. and S.W.,through scattering cedar and pinon timber.
- 20.50 Top of sandstone ridge,bears N.E.and S.W.
Descend.
- 33.50 Hollow,75 ft.deep,course W.
Ascend.
- 36.00 Top of sandstone spur,projects W.
Descend over sandstone ledges.
- 40.00 Point for $\frac{1}{4}$ sec.cor.,falls on the smooth surface of a sandstone ledge,I cut a cross at exact point for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on W.side of cross,from which
A pinon 7 ins.diam.,bears $N.22^{\circ} W.$,16 lks.dist.,
marked $\frac{1}{4}$ S.26 B.T.
A pinon 6 ins.diam.,bears $S.86^{\circ} E.$,50 lks.dist.,marked $\frac{1}{4}$ S.25 B.T.
- 52.00 Bottom of canon,250 ft.deep,course S.W.
Ascend.
- 79.75 Begin ascend over sandstone ledges,bearing N.E.and S.W.
- 80.00 Point for sec.cor.falls on the smooth surface of a sandstone ledge,I cut a cross,X,at exact point for

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

cor. of secs. 23-24-25 and 26, marked with 2 grooves on S. and 1 groove on E. side of cross, from which

A cedar 7 ins. diam., bears S. 27° E., 63 lks. dist., marked T.40 S. R.2 W. S.25 B.T.

A pinon 16 ins. diam., bears S. 68° W., 65 lks. dist., marked T.40 S. R.2 W. S.26 B.T.

A pinon 10 ins. diam., bears N. 27° W., 16 lks. dist., marked T.40 S. R.2 W. S.23 B.T.

No other trees within limits, and raise a mound of stone 2 ft. base, 1 1/2 ft. base, W. of cor.

Pits impracticable.

Land mountainous.

Soil, rocky 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.00 chs.

October 17, 1902.

October 18, At 8 a.m. l.m.t., I set off 37° 19' N. on lat. arc; 9° 23' S. on decl. arc; and determine a true meridian with the solar, at the cor. of secs. 23-24-25 and 26.

Thence I run

N. 89° 58' E., on a random line, bet. secs. 24 and 25.

40.00 Set temp. 1/4 sec. cor.

80.10 Intersect E. Bdy. of Tp., 5 lks. S of the cor. of secs. 19-24-25 and 30, heretofore described.

Thence I run

S. 89° 56' W., on a true line,

Bet. secs. 24 and 25.

Over rocky land. ascend through scattering cedar and pinon timber.

8.00 Top of spur, projects S.W.

Descend.

17.50 Bottom of ravine, 150 ft. deep, course S.W.

Ascend.

36.00 Top of ridge, bears N.E. and S.W.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	
	Begin abrupt descent over broken sandstone ledges, bearing N.E. and S.W.
40.05	Set a sandstone 18x10x10 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
55.00	Bottom of canon, 250 ft. deep, course S.W. Ascend.
80.10	The cor. of secs. 23-24-25 and 26. Land mountainous. Soil, rocky 3rd. and 4th. rate. Timber, scattering cedar and pinon. Mountainous land on 80.10 chs.

N.0° 01' W., bet. secs. 23 and 24.	
5.00	Ascend over sandstone ledges, bearing E. and W. Top of sandstone ridge, bears N.E. and S.W.
	Descend, over broken sandstone ledges bearing N.E. and S.W.
40.00	Bottom of canon, 300 ft. deep, course S.W. Set a sandstone 15x12x8 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Begin abrupt ascent over broken sandstone ledges bearing N.E. and S.W.
76.00	Top of ridge, bears N.E. and S.W. Descend. Enter scattering cedar and pinon timber.
80.00	Set a sandstone 20x8x8 ins. 15 ins., in the ground, for cor. of secs. 13-14-23 and 24, marked with 3 notches on S. and 1 notch on E. edges, from which A cedar 8 ins. diam., bears N.61° E., 19 lks. dist., marked T.40 S. R.2 W. S.13 B.T. No other trees within limits, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

Land mountainous.

Soil, rocky 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.00 chs.

October 18; At this cor. I set off $9^{\circ}28'S$ on decl. arc; and at 11h.45m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}20'N$.

$N.89^{\circ}56'E.$, on a random line, bet. secs. 13 and 24.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.04 Intersect E. Bdy. of Tp., 7 lks. N. of the cor. of secs. 13-18-19 and 24, heretofore described.

Thence I run

$S.39^{\circ}59'W.$, on a true line,

Bet. secs. 13 and 24.

Over rocky land ascend abruptly through scattering cedar and pinon timber.

23.00 Top of rocky ridge, bears N.E. and S.W.

Descend.

40.02 Set a sandstone $15 \times 8 \times 8$ ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which

A cedar 8 ins. diam., bears $N.23^{\circ}E.$, 9 lks. dist., marked $\frac{1}{4}$ S. 13 B.T.

A pinon 6 ins. diam., bears $S.35^{\circ}E.$, 19 lks. dist., marked $\frac{1}{4}$ S. 24 B.T.

54.00 Bottom of canon 250 ft. deep, course S.W.

Begin abrupt ascent over broken sandstone ledges bearing N.E. and S.W.

76.25 Top of ridge, bears N.E. and S.W.

Descend.

80.04 The cor. of secs. 13-14-23 and 24.

Land mountainous.

Soil, rocky 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.04 chs.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

Note:

The land north of this cor, is generally sandstone and is badly broken by box canons and is practically worthless, therefore I do not survey it.

October 13.1902.

October 19; At 8 a.m., l.m.t., I set off $37^{\circ} 17' N.$ on lat. arc; $9^{\circ} 45' S.$ on decl. arc; and determine a true meridian with the solar, at the stan. cor. of secs. 34 and 35, on the 8th. Stan. Par. S., heretofore described.

Thence I run

$N.0^{\circ} 01' W.$, bet. secs. 34 and 35.

Over rocky land, descend through scattering cedar and pinon timber.

- 4.50 Begin abrupt descent over broken sandstone ledges, bearing E. and W.
- 10.00 Bottom of canon, 300 ft. deep, course E.
Abrupt ascent over sandstone ledges bearing E. and W.
- 18.00 Top of abrupt ascent, bears E. and W.
Begin gradual ascent.
- 40.00 Set a sandstone $15 \times 10 \times 8$ ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
A pinon 6 ins. diam., bears $N.24^{\circ} E.$, 43 lks. dist., marked $\frac{1}{4}$ 35 B.T.
A cedar 8 ins. diam., bears $N.67^{\circ} W.$, 25 lks. dist., marked $\frac{1}{4}$ S.34 B.T.
- 54.50 Top of spur, projects N.E.
Descend.
- 63.00 Begin abrupt descent over broken sandstone ledges, bearing E. and W.
- 69.00 Bottom of Kitchen Canon, 400 ft. deep, course E.
Begin abrupt ascent, over broken sandstone ledges, bearing E. and W.
- 74.00 Top of abrupt ascent, bears E. and W.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

Begin gradual ascent.

80.00 Set a sandstone 20x6x6, 15 ins. in the ground, for cor. of secs. 26-27-34 and 35, marked with 1 notch on S. and 2 notches on E. edges, and raise a mound of stone 2 ft. base, 1 1/2 ft. high, W. of cor.

Pits impracticable.

Land mountainous.

Soil, rocky 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.00 cha.

East, on a random line, bet. secs. 26 and 35.

40.00 Set. temp. 1/2 sec. cor.

80.12 Intersect N. and S. line, 7 lks. S. of the cor. of secs. 26-27-34 and 35.

Thence I run

S. 89° 57' W., on a true line,

bet. sec. 26 and 35.

Over rocky land, ascend through scattering cedar and pinon timber.

2.00 Top of sandstone spur, projects S.

Descend over sandstone ledges, bearing N. and S.

9.00 Bottom of canon, 300 ft. deep, course N.W.

Ascend over broken sandstone ledges, bearing N.W. and S.E.

15.00 Top of rocky spur, projects N.W.

Begin abrupt descent over broken sandstone ledges, bearing N.W. and S.E.

23.00 Foot of steep descent, leave rocky land, enter bottom along Paria River, bears N. and S.

Over level sandy land, through dense grease wood brush. Leave timber.

40.06 Set a sandstone 15x10x6 ins., 10 ins. in the ground, for 1/2 sec. cor., marked X on N. face, and raise a mound of stone 2 ft. base, 1 1/2 ft. high, N. of cor.

Pits impracticable.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

- 43.50 Paria River, 40 lks. wide, 15 ins. deep, pure water, course S.E., in bottom of canon 1500 ft. deep, course S.E.
- 60.50 Leave bottom land, bears N. and S.
Begin abrupt ascent over broken sandstone ledges, bearing N. and S.
- 70.00 Top of abrupt ascent, 1200 ft. above Paria River, bears N. and S.
Begin gradual ascent.
- 80.12 The cor. of secs. ~~26-27-34~~ and 35.
Land mountainous.
Soil, sandy and rocky, 3rd. and 4th. rate.
Timber, scattering cedar and pinon on 32.00 chs.
Mountainous land on 80.12 chs.
October 19: At this cor. I set off $9^{\circ}50'S$ on decl. arc; and at 11h.45m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}18'N$.
-
- N. $0^{\circ}01'W$, bet. secs. 26 and 27.
Over broken rocky land, ascend through scattering cedar and pinon timber.
- 40.00 Set a sandstone $20 \times 12 \times 8$ ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
A pinon 6 ins. diam., bears $N.78^{\circ}E$, 16 lks. dist., marked $\frac{1}{4}$ S.26 B.T.
A pinon 8 ins. diam., bears $N.43^{\circ}W$, 62 lks. dist., marked $\frac{1}{4}$ S.27 B.T.
- 50.00 Top of spur, projects E.
Descend over broken land.
- 74.00 Begin abrupt descent over broken sandstone ledges, bearing N.W. and S.E.
- 80.00 Point for sec. cor. falls on the smooth surface of a sandstone ledge, I cut a cross at exact point for cor. of secs. 22-23-26 and 27, and mark 2 grooves on S. and E. sides of cross, from which

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

A cedar 4 ins. diam., bears N.24°W., 78 lks. dist., marked
T.40 S. R.2 W. S.22 B.T.

No other trees within limits, and raise a mound of
stone 2 ft. base, 1½ ft. high, W. of cor.

Pits impracticable.

Land mountainous.

Soil, rocky 3rd, and 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.00 chs.

October 19, 1902.

October 20: At 8 a.m., l.n.t., I set off 37° 19' N. on
lat. arc; 10° 07' S. on decl. arc; and determine a true
meridian with the solar, at the cor. of secs. 22-23-26
and 27.

Thence I run

N.22° 57' E., on a random line, bet. secs. 23 and 26.

40.00 Set temp. ¼ sec. cor.

20.14 Intersect N. and S. line, 9 lks. N. of the cor. of secs.
23-24-25 and 26.

Thence I run

N.22° 59' E., on a true line,

bet. secs. 23 and 26.

Over rocky land, ascend through scattering cedar and
pinon timber.

6.00 Top of sandstone ridge, bears N.E. and S.W.

Begin abrupt descent over sandstone ledges, bearing
N.E. and S.W.

22.00 Bottom of canon, 300 ft. deep, course S.W.

Begin abrupt ascent over sandstone ledges, bearing
N.E. and S.W.

37.00 Top of spur, projects S.

Descend abruptly over sandstone ledges bearing N. and S.

40.07 Point for ¼ sec. cor. falls on the smooth surface of a
sandstone ledge, I cut a cross, X, at exact point for ¼

SUBDIVISIONS OF T.40 S.,R.2 W.,continued.

CHAINS	
	sec.cor.,marked $\frac{1}{4}$ on N.side of cross,and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high,N.of cor. Pits impracticable.
48.00	Foot of steep descent,leave rocky land,enter bottom along Paria River,bears N.W.and S.E. Leave timber.
61.30	Paria River,40 lks.wide,15 lks.deep,course S.E.,in bottom of canon 1500 ft.deep,course S.E.
68.00	Leave bottom land,bears N.W.and S.E. Begin abrupt ascent over broken sandstone ledges,bearing N.W.and S.E. Enter scattering timber.
80.14	The cor.of secs.22-23-26 and 27. Land mountainous. Soil,sandy and rocky 3rd.and 4th.rate. Timber,scattering cedar and pinon timber. Mountainous land on 80.14 chs. October 20: At this cor.I set off $10^{\circ} 12' S.$ on decl. arc;and at 11h.45m.,a.m.,l.m.t.,observe the sun on the meridian,the resulting lat.is $37^{\circ} 19' N.$
	N. $0^{\circ} 01' W.$,bet.secs.22 and 23.
	Over broken sandstone ledges,descend.
19.00	Bottom of ravine,400 ft.deep,course S.E. Begin abrupt ascent over broken sandstone ledges.
21.50	Top of rocky spur,projects S.E. Descend abruptly over broken sandstone ledges.
31.00	Foot of abrupt descent,bears N.W.and S.E. Enter bottom land along Paria River. Over level sandy land through dense artemisia and grease wood brush.
40.00	Set a sandstone 16x10x10 ins.,11 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on W.face,and raise a mound of stone,2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor. Pits impracticable.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

- 48.50 Paria River, 40 lks. wide, 15 lks. deep, pure water,
course S.E., in bottom of canon 1200 ft. deep, course S.E.
- 63.00 Leave bottom land, bears N.W. and S.E.
Begin abrupt ascent over sandstone ledges bearing
N.W. and S.E.
- 80.00 Set a sandstone 18x12x8 ins., 12 ins. in the ground, for
cor. of secs. 14-15-22 and 23, marked with 3 notches on
S. and 2 notches on E. edges, and raise a mound of stone
2 ft. base, 1½ ft. high, W. of cor.
Pits impracticable.
Land mountainous.
Soil, sandy and rocky 3rd. and 4th. rate.
No timber.
Mountainous land on 80.00 chs.

S. 89° 59' E., on a random line, bet. secs. 14 and 23.

- 40.00 Set temp. ¼ sec. cor.
- 80.08 Intersect N. and S. line, 7 lks. S. of the cor. of secs.
13-14-23 and 24.
Thence I run

S. 89° 58' W., on a true line,

Bet. secs. 14 and 23.

- Over broken sandstone ledges, descend abruptly through
scattering cedar and pinon timber.
- 21.00 Bottom of ravine 250 ft. deep, course S.W.
Ascend.
- 23.50 Top of spur, projects S.
Descend.
- 25.00 Bottom of ravine 250 ft. deep, course S.
Begin abrupt ascent over broken sandstone ledges,
bearing N.E. and S.W.
- 40.04 Set a sandstone 15x10x6 ins., 10 ins. in the ground, for
¼ sec. cor., marked ¼ on N. face, and raise a mound of
stone 2 ft. base, 1½ ft. high, N. of cor.
Pits impracticable.

SUBDIVISIONS OF T.40 S.,R.2 W.,continued.

CHAINS

55.00 Top of rocky spur,projects S.W.

Descend.

74.00 Begin abrupt descent over broken sandstone ledges,
bearing N.W.and S.E.

80.08 The cor.of secs.14-15-22 and 23.

Land mountainous.

Soil,rocky 4th.rate.

Timber scattering cedar and pinon.

Mountainous land on 80.08 chs.

NOTE:

The country north of this cor.is badly broken
and is utterly worthless,therefore I abandon the
line at this point.

October 20.1902.

October 21,1902.,At 8 a.m.,l.m.t.,I set off 37° 17'H.
on lat.arc;10° 29'S.on decl.arc;and determine a true
meridian with the solar,on the Eighth Standard Par.S.
the S.Bdy.of the Tp.,at the stan.cor.of secs.33 and
34,heretofore described.

Thence I run

N.0° 02'W.,bet.secs.33 and 34.

Over broken ledges bearing N.E.and S.W.,descend
through scattering cedar and pinon timber.

2.00 Spring branch,2 lks.wide,in bottom of canon 400 ft.
deep,course N.E.

Abrupt ascent over broken sandstone ledges,bearing
N.E.and S.W.

18.00 Leave ledges bear N.E.and S.W.

Leave timber.

Over sandy land ascend through dense artemisia.

38.00 Top of ridge,bears N.E.and S.W.

Descend.

40.00 Set a cedar post,3 ft.long,4 ins.sq.,with marked stone,
24 ins.in the ground,for 1/4 sec.cor.,marked 1/4 S.33 on

SURDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	
62.00	W. and 34 on E. faces; dig pits 18x18x12 ins., N. and S. of post, 3 ft. dist.; and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.
79.50	Begin abrupt descent over sandstone ledges, bearing E. and W.
80.00	<p>Leave sandstone ledges, bear E. and W.</p> <p>Enter bottom of Kitchen canon.</p> <p>Over bottom land.</p> <p>Set a sandstone 24x10x4 ins., 18 ins. in the ground, for cor. of secs. 27-28-33 and 34, marked with 1 notch on S. and 3 notches on E. edges, from which</p> <p>A pinon 10 ins. diam., bears S. 76° E., 135 lks. dist., marked T.40 S. R.2 W. S.34 B.T.</p> <p>No other trees within limits, and raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor.</p> <p>Pits impracticable.</p> <p>Land mountainous.</p> <p>Soil, sandy and rocky 3rd. and 4th. rate.</p> <p>Timber, scattering cedar and pinon.</p> <p>Mountainous land on 80.00 chs.</p>
40.00	<hr/> <p>East, on a random line, bet. secs. 27 and 34.</p>
80.06	<p>Set temp. ¼ sec. cor.</p> <p>Intersect N. and S. line, 5 lks. S. of the cor. of secs. 26-27-34 and 35.</p>
11.50	<p>Thence I run</p> <p style="padding-left: 40px;">S. 89° 58' W., on a true line,</p> <p style="padding-left: 40px;">Bet. secs. 27 and 34.</p>
30.00	<p>Ascend through scattering cedar and pinon timber.</p> <p>Top of spur, projects S.</p> <p>Descend over rocky land.</p>
40.03	<p>Bottom of ravine 300 ft. deep, course S.</p> <p>Begin abrupt ascent, over sandstone ledges bearing N. and S.</p>
40.03	Falls on the smooth surface of a sandstone ledge, I

SUBDIVISIONS OF T.40 S., R.2 W., continued.

- CHAINS
- cut a cross, X, at exact point for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$
on N. side of cross, from which
A cedar 8 ins. diam., bears S. 23° E., 58 lks. dist.,
marked $\frac{1}{4}$ S. 34 B. T.
No other trees within limits, and raise a mound of
stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
Pits impracticable.
- 45.50 Top of spur, projects S.
Descend over broken sandstone ledges bearing N.W. and
S.E.
- 74.75 Foot of sandstone ledges, bear N.W. and S.E.
Enter bottom of Kitchen Canon.
- 75.75 Road, bears N.W. and S.E.
- 78.80 Spring branch, 1 lk. wide, course S.E.
- 80.06 The cor. of secs. 27-28-33 and 34.
Land mountainous.
Soil, sandy and rocky 3rd. and 4th. rate.
Timber, scattering cedar and pinon.
Mountainous land on 80.06 chs.
October 21: At this cor. I set off 10° 32' S. on decl.
arc; and at 11h. 45m., a.m., l.m.t., observe the sun on
the meridian, the resulting lat. is 37° 18' W.
-
- N. 0° 02' W., bet. secs. 27 and 28.
Over sandy bottom land.
- .25 Spring branch 1 lk. wide, in bottom of Kitchen Canon,
500 ft. deep, course S.E.
- 3.00 Road, bears N.W. and S.E.
- 5.00 Begin abrupt ascent over broken sandstone ledges,
bearing E. and W., enter scattering cedar and pinon.
- 11.00 Top of rocky spur, projects S.E.
Descend.
- 25.50 Elbow of ravine, 100 ft. deep, course from N.E. to S.E.
Ascend over rocky land.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

- 29.50 Top of rocky spur projects E'
Descend over rocky land.
- 37.00 Bottom of ravine, 100 ft. deep, course S.E.
Ascend.
- 40.00 Set a sandstone 24x10x5 ins., 18 ins. in the ground,
for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and from which
A cedar 4 ins. diam., bears $N. 77^{\circ} 30' E.$, 42 lks. dist.,
marked $\frac{1}{4}$ S. 27 B.T.
A cedar 14 ins. diam., bears $S. 3^{\circ} 30' W.$, 33 lks. dist.,
marked $\frac{1}{4}$ S. 28 B.T.
- 72.65 Top of ridge, bears N.W. and S.E.
Descend.
- 80.00 Set a sandstone 20x10x6 ins., 15 ins. in the ground, for
cor. of secs. 21-22-27 and 28, marked with 2 notches on
S. and 3 notches on N. edges, and raise a mound of stone
2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
Pits impracticable.
This cor. is 200 ft. below top of ridge.
Land mountainous.
Soil, sandy and rocky, 5rd. and 4th. rate.
Timber, scattering cedar and pinon.
Mountainous land on 80.00 chn.
-
- N. $89^{\circ} 52' E.$, on a random line, bet. secs. 22 and 27.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.10 Intersect N. and S. line, 3 lks. N. of the cor. of secs.
22-23-26 and 27.
Thence I run
S. $89^{\circ} 59' W.$, on a true line,
bet. secs. 22 and 27.
Ascend abruptly over broken sandstone ledges, bearing
N.W. and S.E.
- 3.50 Top of abrupt ascent bears N.W. and S.E.
Begin gradual ascent.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

- 26.50 Top of ridge, bears N.W. and S.E.
Descend.
- 40.05 Set a sandstone 15x12x8 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec, cor. marked $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
Pits impracticable.
- 79.50 Bottom of ravine 250 ft. deep, course S.E.
Ascend.
- 80.10 The cor. of secs. 21-22-27 and 28.
Land mountainous.
Soil, rocky 4th. rate.
No timber.
Mountainous land on 80.10 chs.

October 21, 1902.

October 22: At 8 a.m., l.m.t., I set off $37^{\circ} 19' N.$ on lat. arc; $10^{\circ} 50' S.$ on decl. arc; and determine a true meridian with the solar, at the cor. of secs. 21-22-27 and 28.

Thence I run

$N. 0^{\circ} 02' W.$, bet. secs. 21 and 22.

Descend over rocky land.

- .65 Bottom of ravine, 250 ft. deep, course S.E.
Ascend over rocky land through scattering cedar and pinon timber.
- 27.00 Top of ridge, bears E. and W.
Descend over broken sandstone ledges.
- 40.00 Falls on the smooth surface of a sandstone ledge, I cut a cross, X, at exact point for $\frac{1}{4}$ sec. cor., mark $\frac{1}{4}$ on W. side of cross, from which
A pinon 4 ins. diam., bears $N. 77^{\circ} E.$, 33 lks. dist., marked $\frac{1}{4}$ S. 22 B.T.
A pinon 12 ins. diam., bears $N. 9^{\circ} W.$, 40 lks. dist., marked $\frac{1}{4}$ S. 21 B.T.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	
53.50	Bottom of ravine, 200 ft. deep, course E. Begin abrupt ascent.
57.50	Top of ridge bears E. and W. Descend.
80.00	Set a sandstone 28x8x6 ins., 21 ins. in the ground, for cor. of secs. 15-16-21 and 22, marked 40 S. on N.E., and 2 W. on S.E. face; and with 3 notches on S. and E. edges. from which A pinon 12 ins. diam., bears N. 30° E., 22 lks. dist., marked T.40 S. R.2 W. S.15 B.T. A pinon 9 ins. diam., bears S. 22° E., 27 lks. dist., marked T.40 S. R.2 W. S.22 B.T. A pinon 5 ins. diam., bears S. 67° W., 20 lks. dist., marked T.40 S. R.2 W. S.21 B.T. A pinon 24 ins. diam., bears N. 65° W., 35 lks. dist., marked T.40 S. R.2 W. S.16 B.T. Land mountainous. Soil, rocky 4th. rate. Timber, scattering cedar and pinon. Mountainous land on 80.00 chs.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.14	Intersect N. and S. line, 7 lks. N. of the cor. of secs. 14-15-22 and 23. Thence I run N. 89° 58' W., on a true line, Bet. secs. 15 and 22.
7.50	Foot of ledges bear N.W. and S.E. Enter sandy bottom along Parraí River.
12.00	Parraí River, 40 lks. wide, 15 ins. deep, pure water,

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	
23.00	<p>in bottom of canon 1200 ft. deep, course S.E.</p> <p>Leave bottom land, bears N.W. and S.E.</p> <p>Begin abrupt ascent over broken sandstone ledges, bearing N.W. and S.E.</p>
36.00	<p>Top of abrupt ascent, bears N.W. and S.E.</p> <p>Leave ledges, begin gradual ascent.</p>
40.07	<p>Top of spur, projects S.E.</p> <p>Set a sandstone 15x10x8 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.</p> <p>Pits impracticable.</p> <p>Begin abrupt ascent over rocky land.</p>
44.00	<p>Bottom of ravine, 150 ft. deep, course S.E.</p> <p>Ascend.</p>
57.00	<p>Top of spur, projects N.</p> <p>Descend.</p>
66.00	<p>Bottom of ravine 100 ft. deep, course N.</p> <p>Ascend.</p>
74.00	<p>Top of spur, projects N.</p> <p>Descend.</p>
80.14	<p>The cor. of secs. 15-16-21 and 22.</p> <p>Land mountainous.</p> <p>Soil, sandy and rocky 3rd. and 4th. rate.</p> <p>No timber.</p> <p>Mountainous land on 80.14 chs.</p> <p>October 22: At this cor. I set off $10^{\circ} 55'$ S. on decl. arc; and at 11h. 45m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ} 20'$ N.</p>
	<hr/> <p>N. $0^{\circ} 02'$ W., bet. secs. 15 and 16.</p> <p>Over rocky land, descend through scattering cedar and pinon timber.</p>
3.00	<p>Bottom of ravine, 200 ft. deep, course N.E.</p> <p>Ascend.</p>
7.00	<p>Top of spur, projects E.</p>

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	
	Descend.
9.50	Bottom of ravine 250 ft. deep, course E. Begin abrupt ascent.
29.80	Top of ridge, bears E. and W. Descend.
40.00	Set a sandstone 16x10x5 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which A pinon 10 ins. diam., bears S. 72° W., 43 lks. dist., marked $\frac{1}{4}$ S. 16 B.T. A cedar 10 ins. diam., bears S. 54° E., 41 lks. dist., marked $\frac{1}{4}$ S. 15 B.T.
74.00	Bottom of canon, 300 ft. deep, course N.E. Begin abrupt ascent.
80.00	Top of spur, projects N.E. Set a sandstone 14x10x10 ins., 10 ins. in the ground, for cor. of secs. 9-10-15 and 16, marked with 4 notches on S. and 3 notches on E. edges, from which A cedar 10 ins. diam., bears N. 7° E., 45 lks. dist., marked T.40 S. R.2 W. S.10 B.T. A cedar 11 ins. diam., bears S. 87° E., 90 lks. dist., marked T.40 S. R.2 W. S.15 B.T. A cedar 5 ins. diam., bears S. 11° W., 30 lks. dist., marked T.40 S. R.2 W. S.16 B.T. A cedar 14 ins. diam., bears N. 12° W., 38 lks. dist., marked T.40 S. R.2 W. S.9 B.T. Land mountainous. Soil, rocky 3rd. and 4th. rate. Timber, scattering cedar and pinon. Mountainous land on 80.00 chs.

Note:

On account of badly broken sandstone country, I
do not run the line bet. secs. 10 and 15.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	
	N.0° 02' W., bet. secs. 9 and 10. Descend abruptly over broken sandstone ledges, through scattering cedar and pinon timber.
3.00	Bottom of ravine, 250 ft. deep, course S.E. Begin abrupt ascent.
14.00	Top of spur, projects S.E. Descend.
40.00	Set a sandstone 18x8x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which A cedar 8 ins. diam., bears N.72° E., 34 lks. dist., marked $\frac{1}{4}$ S.10 B.T. A pinon 10 ins. diam., bears N.43° W., 9 lks. dist., marked $\frac{1}{4}$ S.9 B.T.
68.50	Bottom of ravine, 150 ft. deep, course N.E. Ascend, over broken land.
80.00	Set a sandstone 20x9x9 ins., 15 ins. in the ground, for cor. of secs. 3-4-9 and 10, marked with 5 notches on S. and 3 notches on E. edges, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land mountainous. Soil, rocky 4th. rate. Timber, scattering cedar and pinon. Mountainous land on 80.00 chs.
	<hr/>
	<u>Note:</u> On account of broken sandstone land I do not run the line bet. secs. 3 and 10.
	<hr/>
	N.0° 02' W., on a random line, bet. secs. 3 and 4.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.10	Intersect N. Bdy. of Tp., 11 lks. E. of the cor. of secs.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

3-4-33 and 34, heretofore described.

Thence I run

S.0° 07'E., bet. secs. 3 and 4.

Over rocky land, ascend through scattering cedar and pinon timber.

8.50 Top of rocky spur, projects S.E.

Descend.

19.50 Deer Creek, 4 lks. wide, in bottom of canon, 250 ft. deep, course S.E.

Begin abrupt ascent.

36.50 Top of rocky spur, projects N.E.

Descend, over rocky and broken land.

40.10 Set a sandstone 15x8x8 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

80.10 The cor. of secs. 3-4-9 and 10.

Land mountainous.

Soil, rocky 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.10 chs,

October 22, 1902.

October 23: At 8 a.m., l.m.t., I set off 37° 17' N. on lat. arc; 11° 11' S. on decl. arc; and determine a true meridian, with the solar, on the 8th. Stan. Par. S., the S. Bdy. of the Tp., at the stan. cor. of secs. 32 and 33, heretofore described.

Thence I run

N.0° 03' W., bet. secs. 32 and 33.

Over sandy land, ascend through scattering cedar and pinon timber.

9.00 Top of ridge, bears N.E. and S.W.

Descend.

22.00 Bottom of ravine, 200 ft. deep, course N.W.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	
	Ascend.
35.00	Top of spur, projects N.W.
	Descend.
40.00	Set a sandstone 24x10x6 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which A pinon 10 ins. diam., bears N.39°W., 31 lks. dist., marked $\frac{1}{4}$ S.32 B.T. A cedar 12 ins. diam., bears S.42°E., 25 lks. dist., marked $\frac{1}{4}$ S.33 B.T.
40.50	Bottom of ravine, 100 ft. deep, course W. Ascend.
46.00	Top of spur, projects W! Descend.
53.50	Bottom of gulch, 75 ft. deep, course W. Ascend over sandstone.
55.00	Top of sandstone spur, projects W. Abrupt descent over sandstone.
57.00	Hollow, 50 ft. deep, drains W. Ascend.
60.00	Top of spur, projects W. Descend abruptly over broken sandstone ledges, bearing E. and W.
64.00	Foot of abrupt descent. Leave rocky land and timber, over bottom land in Kitchen Canon, land nearly level, through dense artemisia.
75.00	Road, bears E. and W.
76.25	Wash, 10 ft. wide, 6 ft. deep, in bottom of Kitchen Canon, 600 ft. deep, course E.
78.75	Leave bottom of canon, ascend over sandstone ledges bearing N.E. and S.W.
79.00	Top of sandstone point, 50 ft. above canon, projects S.W. Begin abrupt descent.
80.00	Falls on bottom land of Kitchen Canon, in a cove formed by the sandstone ledges.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

Set a sandstone 30x12x12 ins., 22 ins. in the ground, for cor. of secs. 28-29-32 and 33, marked with 1 notch on S. and 4 notches on E. edges, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Land, mountainous on 65.25 chs.

level on 14.75 chs.

Soil, rocky on 65.25 chs. 3rd and 4th. rate.

sandy loam on 14.75 chs. 2nd. rate.

Timber, scattering cedar and pinon on 65.25 chs.

Mountainous land or dense undergrowth on 80.00 chs.

East, on a random line, bet. secs. 28 and 33.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.02 Intersect N. and S. line, 11 lks. N. of the cor. of secs. 27-28-33 and 34.

Thence I run

N. 89° 55' W., on a true line,

Bet. secs. 28 and 33.

Over bottom land in Kitchen Canon, through dense artemisia and grease wood brush.

.10 Spring branch, 1 lk. wide, course N.E.

2.40 Stake and rider fence, belonging to Eugene Potter, bears N. and S.

10.50 Road, bears N.E. and S.W.

15.25 Leave bottom, begin abrupt ascent over sandstone ledges bearing N.E. and S.W., enter scattering timber.

31.50 Top of rocky spur, 300 ft. above canon, projects S. Begin abrupt descent over sandstone ledges.

38.00 Foot of ledges, bear N. and S.

Enter bottom land in Kitchen Canon.

Leave timber.

40.01 Set a sandstone 24x10x6 ins., 18 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	
	A pinon 8 ins.diam., bears N.49°E., 1.32 chs.dist., marked $\frac{1}{4}$ S.28 B.T. No other trees within limits, and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high, N.of cor. Pits impracticable.
61.40	Stake and rider fence, bears N.and S. Log house, 20x20 ft., belonging to Eugene Potter, bears S.4.00 chs.dist.
75.00	Leave bottom of canon, begin abrupt ascent over sandstone ledges bearing N.E.and S.W.
78.00	Top of sandstone spur, 150 ft.above canon, projects S.W. Begin abrupt descent.
80.02	The cor.of secs.28-29-32 and 33. Land mountainous and bottoms. Soil, rocky on 27.75 chs. 4th.rate. sandy loam on 52.25 Timber, scattering cedar and pinon on 23.75 chs. Mountainous land or dense undergr owth on 80.02 chs. October 23: At this cor.I set off $11^{\circ}15'$ S.on decl. arc, and at 11h.45m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat.is $37^{\circ}18'N$.
	N.0° 03'W., bet.secs.28 and 29.
3.50	Ascend abruptly over sandstone ledges, bearing E.and W. Top of sandstone spur, projects S.W. Descend over broken sandstone ledges, bearing N.E. and S.W.
11.00	Bottom of ravine 200 ft.deep, course S.W. Over broken land, ascend through scattering cedar and pinon timber.
37.00	Top of rocky spur, projects S.E. Descend.
40.00	Set a sandstone 28x12x4 ins., 21 ins.in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face, from which

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

- A cedar 4 ins.diam., bears S.64°E., 6 lks.dist., marked $\frac{1}{4}$ S.28 B.T.
- A pinon 7 ins.diam., bears N.1°W., 31 lks.dist., marked $\frac{1}{4}$ S.29 B.T.
- 41.50 Bottom of ravine 100 ft.deep, course S.E.
Ascend.
- 50.30 Top of ridge, bears N.E.and S.W.
Descend.
- 65.00 Bottom of ravine 150 ft.deep, course W.
Ascend.
- 69.00 Top of spur, projects S.W.
Descend.
- 71.10 Hollow 50 ft.deep, course S.W.
Ascend.
- 73.20 Top of spur, projects S.W.
Descend.
- 80.00 Set a sandstone 20x8x5 ins., 15 ins.in the ground, for cor.of secs.20-21-28 and 29, marked with 2 notches on S.and 4 notches on E.edges, from which
A cedar 6 ins.diam., bears S.66°E., 72 lks.dist., marked T.40 S. R.2 W. S.28 B.T.
A pinon 8 ins.diam., bears S.15°W., 1.25 chs.dist., marked T.40 S. R.2 W. S.29 B.T.
No other trees within limits and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high, W.of cor.
Pits impracticable.
Land mountainous.
Soil, sandy and rocky 3rd.and 4th.rate.
Timber, scattering cedar and pinon.
Mountainous land on 80.00 chs.
-
- S.89° 55'E., on a random line, bet.secs.21 and 28.
- 40.00 Set temp. $\frac{1}{4}$ sec.cor.
- 79.98 Intersect N.and S.line, 7 lks.S.of the cor.of secs.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

21-22-27 and 28.

Thence I run

N. 89° 53' W., on a true line,

Bet. secs, 21 and 28.

Over rocky land, ascend through scattering cedar and pinon timber.

12.00 Top of ridge, bears N.W. and S.E.

Descend.

26.00 Head of ravine, course S.E.

Ascend.

31.00 Top of ridge, bears N. and S.

Descend.

39.99 Set a sandstone 15x8x8 ins., 10 ins. in the ground, for

 $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which

A cedar 6 ins. diam., bears N. 67° E., 14 lks. dist.,

marked $\frac{1}{4}$ S. 21 B.T.

A cedar 10 ins. diam., bears S. 65° E., 23 lks. dist.,

marked $\frac{1}{4}$ S. 28 B.T.

44.00 Bottom of ravine 150 ft. deep, course S.

Ascend.

58.00 Top of ridge, bears N. and S.

Descend.

79.98 The cor. of secs, 20-21-28 and 29.

Land mountainous.

Soil, rocky 3rd. and 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land on 79.98 chs.

October 23, 1902.

October 24: At 8 a.m., l.m.t., I set off 37° 19' N. on lat. arc; 11° 32' S. on decl. arc; and determine a true meridian with the solar, at the cor. of secs. 20-21-28 and 29.

Thence I run

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

N.0° 03' W., bet. secs. 20 and 21.

Over rocky land, descend through scattering cedar and pinon timber.

1.50 Bottom of ravine, 100 ft. deep, course S.W.

Ascend over rocky land.

40.00 Set a sandstone 16x10x8 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which

A pinon 12 ins. diam., bears N.9°W., 15 lks. dist., marked $\frac{1}{4}$ S.20 B.T.

A pinon 9 ins. diam., bears S.42°E., 37 lks. dist., marked $\frac{1}{4}$ S.21 B.T.

This cor. is 400 ft. above sec. cor.

43.20 Top of ridge, bears N.E. and S.W.

Descend.

54.00 Bottom of ravine, 150 ft. deep, course W.

Ascend.

69.00 Top of spur, projects N.W.

Descend.

74.50 Ravine, 100 ft. deep, course W.

Ascend.

80.00 Set a sandstone 16x12x6 ins., 11 ins. in the ground, for cor. of secs. 16-17-20 and 21, marked with 3 notches on S. and 4 notches on E. edges, from which

A cedar 15 ins. diam., bears S.15°W., 18 lks. dist., marked T.40 S. R.2 W. S.20 B.T.

A pinon 5 ins. diam., bears N.49°W., 38 lks. dist., marked T.40 S. R.2 W. S.17 B.T.

No other trees within limits and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Land mountainous.

Soil, rocky 3rd. and 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.00 chs.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

- CHAINS
- S.89° 58'E., on a random line, bet. secs. 16 and 21.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.02 Intersect N. and S. line, 7 lks. S. of the cor. of secs. 15-16-21 and 22.
- Thence I run
- S.89° 59'W., on a true line,
Bet. secs. 16 and 21.
- Over rocky land, descend through scattering cedar and pinon timber.
- 7.00 Bottom of ravine, 150 ft. deep, course N.E.
- Ascend.
- 40.01 Set a sandstone 24x5x5 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which
- A pinon 5 ins. diam., bears North, 61 lks. dist., marked $\frac{1}{4}$ S. 16 B.T.
- A pinon 3 ins. diam., bears S. 18° E., 58 lks. dist., marked $\frac{1}{4}$ S. 21 B.T.
- 41.00 Top of ridge, bears N. and S., 500 ft. above sec. cor.
- Descend over rocky land.
- 80.02 The cor. of secs. 16-17-20 and 21.
- This cor. is 400 ft. below top of ridge.
- Land mountainous.
- Soil, rocky 3rd. and 4th. rate.
- Timber, scattering cedar and pinon.
- Mountainous land on 80.02 chs.
- October 24: At this cor. I set off 11° 35' S. on decl. arc, and at 11h. 44m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37° 20' N.
-
- N. 0° 03' W., bet. secs. 16 and 17.
- Over rocky land, ascend through scattering cedar and pinon timber.
- 3.75 Top of spur, projects S.W.
- Descend.
- 17.00 Bottom of ravine, 200 ft. deep, course S.W.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	
	Ascend.
40.00	Set a sandstone 20x12x5 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which A pinon 10 ins. diam., bears S. 82° E., 1.10 chs. dist., marked $\frac{1}{4}$ S. 16 B.T. A pinon 6 ins. diam., bears S. 78° W., 1.1 lks. dist., marked $\frac{1}{4}$ S. 17 B.T.
41.00	Top of ridge, 400 ft. above sec. cor., bears E. and W. Descend.
68.00	Bottom of ravine, 100 ft. deep, course N.W. Over rolling land ascend.
80.00	Falls on the smooth surface of a sandstone ledge, I cut a cross, X, at exact point for cor. of secs. 8-9-16 and 17, marked 4 grooves on S. and E. sides of cross, from which A pinon 8 ins. diam., bears N. 56° E., 49 lks. dist., marked T. 40 S. R. 2 W. S. 9 B.T. A pinon 15 ins. diam., bears N. 37° W., 76 lks. dist., marked T. 40 S. R. 2 W. S. 8 B.T. No other trees within limits, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land mountainous. Soil, rocky 3rd. and 4th. rate. Timber, scattering cedar and pinon. Mountainous land on 30.00 chs.
	N. 89° 59' E., on a random line, bet. secs. 9 and 16.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
30.04	Intersect N. and S. line, 5 lks. N. of the cor. of secs. 9-10-15 and 16. Thence I run N. 89° 59' W., on a true line, Bet. secs. 9 and 16. Over rocky land, descend through scattering cedar and pinon timber.

SUBDIVISIONS OF T.40 S.,R.2 W.,continued.

CHAINS	
28.00	Bottom of ravine 75 ft.deep,course N.E. Ascend over sandstone ledges.
40.02	Falls on the smooth surface of a sandstone ledge,I cut a cross,X,at exact point for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$.on N.face,from which A pinon 6 ins.diam.,bears S.79°W.,40 lks.dist.,marked $\frac{1}{4}$ S.16 B.T. A cedar 3 ins.diam.,bears North,22 lks.dist.,marked $\frac{1}{4}$ S.9 B.T.
51.00	Top of ridge,bears N.E.and S.W.,600 ft.above sec.cor. Leave sandstone ledges. Descend.
75.25	Sandstone ledges bear N.and S.
80.04	The cor.of secs.8-9-16 and 17. Land mountainous. Soil,sandy and rocky 3rd.and 4th.rate. Timber,scattering cedar and pinon. Mountainous land on 80.04 chs.
	October 24,1902.
	October 25: At 8 a.m.,1.m.t.,I set off 37° 21'N.on lat.arc;11° 53'S.on decl.arc; and determine a true meridian with the solar,at the cor.of secs.8-9-16 and 17.
	Thence I run N.0°03'W.,bet.secs.8 and 9. Over sandstone ledges,ascend through scattering cedar and pinon timber.
19.75	Top of spur,projects W. Descend over sandstone ledges.
35.50	Bottom of canon,250 ft.deep,course N.E. Begin abrupt ascent,over broken sandstone ledges.
40.00	Set a sandstone 20x10x5 ins.,15 ins.in the ground,for $\frac{1}{4}$ sec.cor.marked $\frac{1}{4}$.on W.face,from which

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

- A pinon 8 ins.diam., bears S.31°E., 10 lks.dist., marked $\frac{1}{4}$ S.9 B.T.
- A cedar 15 ins.diam. bears S.59°W., 32 lks.dist., marked $\frac{1}{4}$ S.8 B.T.
- 59.00 Top of ridge, bears N.E. and S.W.
Descend.
- 73.00 Bottom of ravine, 200 ft. deep, course N.E.
Ascend.
- 80.00 Mark a sandstone boulder 36x24x24 ins. above ground, with 5 notches on S. and 4 notches on E. edges, from which
- A pinon 8 ins.diam., bears N.81°E., 40 lks.dist., marked T.40 S. R.2 W. S.4 B.T.
- A cedar 3 ins.diam., bears S.82°W., 36 lks.dist., marked T.40 S. R.2 W. S.8 B.T.
- No other trees within limits, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.
- Pits impracticable.
- Land mountainous.
- Soil, rocky 3rd. and 4th. rate.
- Timber, scattering cedar and pinon.
- Mountainous land on 80.00 chs.
-
- S.89° 59'E., on a random line, bet. secs. 4 and 9.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.06 Intersect N. and S. line, 7 lks. S. of the cor. of secs. 3-4-9 and 10.
- Thence I run
- S.89° 58'W., on a true line,
Bet. secs. 4 and 9.
- Over rocky land, ascend through scattering cedar and pinon timber.
- 33.00 Top of ridge, 400 ft. above sec. cor., bears N.E. and S.W.
Descend.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	
40.03	<p>Set a sandstone 24x12x5 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which</p> <p>A pinon 8 ins. diam., bears S. 42° W., 14 lks. dist., marked $\frac{1}{4}$ S. 9 B. T.</p> <p>No other trees within limits, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high N. of cor.</p> <p>Pits impracticable.</p>
40.80	<p>Begin abrupt descent over sandstone ledges, bearing N. and S.</p>
49.50	<p>Bottom of ravine, 250 ft. deep, course N. E.</p> <p>Begin abrupt ascent over broken sandstone ledges, bearing N. E. and S. W.</p>
61.00	<p>Top of rocky spur, projects N. E.</p> <p>Descend.</p>
67.00	<p>Bottom of ravine, 150 ft. deep, course N. E.</p> <p>Ascend.</p>
80.06	<p>The cor. of secs. 4-5-8 and 9.</p> <p>Land mountainous.</p> <p>Soil, rocky 3rd. and 4th. rate.</p> <p>Timber, scattering cedar and pinon.</p> <p>Mountainous land on 80.06 chs.</p> <p>October 25: At this cor. I set off 11° 58' S. on decl. arc, and at 11h. 44m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37° 22' N.</p> <hr/> <p>N. 0° 03' W., on a random line, bet. secs. 4 and 5.</p>
40.00	<p>Set temp. $\frac{1}{4}$ sec. cor.</p>
80.08	<p>Intersect N. Bdy. of Tp., 5 lks. E. of the cor. of secs. 4-5-32 and 33, heretofore described.</p> <p>Thence I run</p> <p style="text-align: center;">S. 0° 05' E., on a true line,</p> <p style="text-align: center;">Bet. secs. 4 and 5.</p> <p>Over rocky land, descend through scattering cedar and pinon timber.</p>

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS.

- 33.00 Bottom of ravine, 250 ft. deep, course N.E.
Begin abrupt ascent.
- 40.08 Set a sandstone 24x12x6 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which.
A pinon 12 ins. diam., bears S. 79° W., 32 lks. dist., marked $\frac{1}{4}$ S. 5 B.T.
A pinon 3 ins. diam., bears S. 44° E., 15 lks. dist., marked $\frac{1}{4}$ S. 4 B.T.
- 65.00 Top of ridge, bears N.E. and S.W.
Descend abruptly over rocky land.
- 80.08 The cor. of secs. 4-5-8 and 9.
Land mountainous.
Soil, rocky 3rd. and 4th. rate.
Timber, scattering cedar and pinon.
Mountainous land on 80.08 chs.

October 25, 1902.

October 26: At 8 a.m., l.m.t., I set off 37° 17' N. on lat. arc; 12° 14' S. on decl. arc; and determine a true meridian with the solar, on the 8th. Stan. Par. S., the S. Bdy. of the Tp., at the Stan. cor. of secs. 31 and 32, heretofore described.

Thence I run

N. 0° 03' W., bet. secs. 31 and 32.

Over rocky land, descend through dense artemisia, scattering cedar and pinon timber.

- 21.90 Bottom of ravine, 150 ft. deep, course N.W.
Ascend.
- 28.00 Top of spur. projects N.W.
Begin abrupt descent.
- 39.20 Foot of abrupt descent bears N.E. and S.W.
300 ft. below stan. sec. cor.
Enter bottom land, descend gradually through dense artemisia, grease wood and scattering oak brush.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	
40.00	<p>Set a sandstone 15x12x6 ins., 10 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$: on W. face, from which</p> <p>An oak 5 ins. diam., bears N.73°E., 62 lks. dist., marked $\frac{1}{4}$ S.32 B.T.</p> <p>An oak 4 ins. diam., bears N.17°W., 62 lks. dist., marked $\frac{1}{4}$ S.31 B.T.</p>
80.00	<p>Set a sandstone 24x12x5 ins., 18 ins. in the ground, for cor. of sec. 29-30-31 and 32, marked with 1 notch on S. and 5 notches on E. edges, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.</p> <p>Pits impracticable.</p> <p>Land mountainous and bottoms.</p> <p>Soil, rocky on 39.20 chs., 3rd. rate.</p> <p style="padding-left: 40px;">sandy loam on 40.80 chs., 2nd. rate.</p> <p>Timber, scattering cedar and pinon on 39.20 chs.</p> <p>Mountainous land or dense undergrowth on 80.00 chs.</p> <p style="text-align: center;">-----</p> <p>East, on a random line, bet. secs. 29 and 32.</p>
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.98	<p>Intersect N. and S. line, 3 lks. S. of the cor. of secs. 28-29-32 and 33.</p> <p>Thence I run</p> <p style="padding-left: 80px;">S.89° 59' W., on a true line,</p> <p style="padding-left: 80px;">Bet. secs. 29 and 32.</p>
	Over bottom land, descend gradually through dense artemisia and greasewood brush.
9.25	<p>Wash, 10x10 ft., in bottom of Kitchen Canon, 600 ft. deep, course S.E.</p> <p>Begin gradual ascent.</p>
33.00	Road, bears N.W. and S.E.
39.99	<p>Set a sandstone 28x12x10 ins., 21 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$: on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.</p> <p>Pits impracticable.</p>

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	
49.70	Stake and rider fence, bears N. and S. Flag Spring, a small pool with no outlet, bears S. 25 lks. Begin abrupt ascent over broken sandstone ledges, bearing N.W. and S.E., through scattering cedar and pinon timber.
55.50	Top of rocky spur, projects N., 200 ft. above Flag Spring. Begin abrupt descent.
59.25	Bottom of ravine, 75 ft. deep, course N. Ascend.
66.00	Top of rocky spur, projects N. Descend.
69.00	Leave rocky land, bears N. and S. Leave timber. Over bottom land, through dense undergrowth.
79.98	The cor. of secs. 29-30-31 and 32. Land, mountainous and bottoms. Soil, rocky on 20.70 chs, 3rd. rate. balance sandy loam, 2nd. rate. Timber, scattering cedar and pinon on 20.70 chs. Mountainous land or dense undergrowth on 79.98 chs.
————— West, on a random line, bet. secs. 30. and 31.	
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.94	Intersect W. Bdy. of Tp. 3 lks. S. of the cor. of secs. 25-30-31 and 36, heretofore described. Thence I run S. 89° 59' E., on a random line, Bet. secs. 30 and 31. Over bottom land, descend gradually.
5.35	Road, bears N.E. and S.W.
18.00	West side of circular lake, pure water 15 ins. deep. Frame house of Edward Reynolds, bears N. 28° E., 7.00 chs. dist.
23.00	East side of lake.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

- Ascend gradually.
- 29.00 Begin abrupt ascent of broken sandstone ledges, bearing N. and S,
- 33.00 Top of rocky spur, projects N., 200 ft. above sec. cor.
Descend.
- 37.00 Bottom of ravine, 100 ft. deep, course N.
Ascend over broken sandstone ledges, bearing N. and S.
- 39.94 Point for $\frac{1}{4}$ sec. cor., falls on the smooth surface of a sandstone ledge, I cut a cross, X, at exact point for for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. side of cross, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
Pits impracticable.
- 43.50 Top of rocky spur, projects N.
Begin abrupt descent over broken sandstone ledges, bearing N.W. and S.E.
- 50.00 House belonging to Abner W. Potter, bears N., 4.00 chs. dist.
- 52.00 Foot of abrupt descent, leave rocky land.
Gradual descent over bottom land, through dense artemisia and grease wood brush.
- 79.94 The cor. of secs. 29-30-31 and 32.
Land, mountainous and bottoms.
Soil, rocky on 29.00 chs., 3rd. rate.
balance sandy loam, 2nd. rate.
No timber.
Mountainous land or dense undergrowth on 51.00 chs.
October 26: At this cor. I set off $12^{\circ} 18' S.$ on decl. arc, and at 11h. 44m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ} 13' N.$
-
- $N. 0^{\circ} 03' W.$, bet. secs. 29 and 30.
Over bottom land, descend gradually through dense artemisia, rabbit brush and grease wood.
- 21.00 Road, bears E. and W.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

23.00 Wash, 5x5ft. bottom of Kitchen Canon, course S.E.
Begin gradual ascent.

31.50 Enter scattering cedar and pinon timber.

39.00 Begin abrupt ascent over broken sandstone ledges,
bearing N.E. and S.W.

40.00 Set a sandstone 20x14x8 ins., 15 ins. in the ground, for
 $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
A cedar 12 ins. diam., bears N. 39° W., 22 lks. dist., marked
 $\frac{1}{4}$ S. 30 B.T.
A pinon 4 ins. diam., bears N. 18° E., 27 lks. dist., marked
 $\frac{1}{4}$ S. 29 B.T.

63.00 Top of ridge, bears N.E. and S.W., 500 ft. above bottom
of canon.
Descend.

72.00 Bottom of ravine, 150 ft. deep, course S.W.
Ascend.

80.00 Top of spur, projects S.W.
Set a sandstone 24x10x8 ins., 18 ins. in the ground,
for cor. of secs. 19-20-29 and 30, marked with 2 notches
on S. and 5 notches on E. edges, from which
A pinon 8 ins. diam., bears N. 68° 30' E., 98 lks. dist.,
marked T.40 S. R.2 W. S.20 B.T.
A pinon 12 ins. diam., bears S. 42° E., 1.62 chs. dist.,
marked T.40 S. R.2 W., S.29 B.T.
A cedar 10 ins. diam., bears S. 15° W., 1.35 chs. dist.,
marked T.40 S. R.2 W. S.30 B.T.
No other trees within limits, and raise a mound of
stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
Pits impracticable.
Land mountainous and bottoms.
Soil, sandy loam on 31.50 chs.
balance rocky 3rd. rate.
Timber, scattering cedar and pinon on 48.50 chs.
Mountainous land or dense undergrowth on 80.00 chs.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	
	N.89° 59'E., on a random line, bet. secs. 20 and 29.
40.00	Set temp. $\frac{1}{4}$ sec' cor.
80.02	Intersect N. and S. line, 5 lks. S. of the cor. of secs. 20-21-28 and 29.
	Thence I run
	S.89° 57'W., on a true line,
	Bet. secs. 20 and 29.
	Over rocky land, descend through scattering cedar and pinon timber.
.60	Bottom of ravine, 100 ft. deep, course S.W. Ascend.
4.00	Top of spur, projects S.W. Descend.
16.00	Bottom of ravine, 150 ft. deep, course S. Ascend.
25.00	Top of spur, projects S. Descend.
38.00	Bottom of ravine, 200 ft. deep, course S.E. Ascend.
40.01	Set a sandstone 18x14x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
43.00	Begin abrupt ascent over sandstone ledges, bearing N. and S.
58.50	Top of ridge, bears N.E. and S.W. Descend.
70.00	Bottom of ravine, 75 ft. deep, course S.W. Ascend.
80.02.	Top of spur, projects S.W. The cor. of secs. 19-20-29 and 30. Land mountainous. Soil, rocky 3rd. and 4th. rate. Timber, scattering cedar and pinon. Mountainous land on 80.02 chs.

SUBDIVISIONS OF T.40 S.,R.2 W.,continued.

CHAINS

N.89°59'W., on a random line, bet. secs. 19 and 30.

40.00 Set temp. 1/4 sec. cor.

79.86 Intersect W. Bdy. of Tp., 7 lks. N. of the cor. of secs. 19-24-25 and 30, heretofore described.

Thence I run

N.89° 58' E., on a true line.,

Bet. secs. 19 and 30.

Over bottom land. descend gradually through dense artemisia, grease wood and rabbit brush.

17.00 Road, bears N.W. and S.E., in wash, 6 ft. wide, 2 ft. deep, course S.

Begin gradual ascent.

24.00 Top of low spur, projects S.W.

Descend.

26.50 Enter bottom land, bears N.E. and S.W.

Begin gradual descent.

29.00 Wash, 4x4 ft. course S.W.

Begin gradual ascent.

39.86 Set a sandstone 30x10x4 ins., 23 ins. in the ground, for 1/4 sec. cor., marked 1/2 on N. face, and raise a mound of stone 2ft. base, 1 1/2 ft. high, N. of cor.

Pits impracticable.

51.50 Begin abrupt ascent over rocky land, through scattering cedar and pinon timber.

79.86 Top of spur, projects S.W.

The cor. of secs. 19-20-29 and 30.

Land mountainous and bottoms.

Soil, rocky on 35.00 chs. 3rd. rate.

balance sandy loam, 2nd. rate.

Timber, scattering cedar and pinon on 28.50 chs.

Mountainous land or dense undergrowth on 79.86 chs.

October 26, 1902.

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SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	
	<p>October 27: At 8 a.m., l.m.t., I set off $37^{\circ} 19' N.$ on lat. arc; $12^{\circ} 34' S.$ on decl. arc; and determine a true meridian with the solar, at the cor. of secs. 19-20-29 and 30.</p> <p>Thence I run</p> <p style="padding-left: 40px;">$N.00^{\circ} 03' W.$, bet. secs. 19 and 20.</p> <p>Over rocky land, descend through scattering cedar and pinon timber.</p>
22.00	<p>Bottom of ravine, 200 ft. deep, course S.W.</p> <p>Ascend.</p>
30.85	<p>Top of ridge, bears N.E. and S.W.</p> <p>Descend.</p>
40.00	<p>Bottom of ravine 100 ft. deep, course S.W.</p> <p>Set a sandstone $20 \times 10 \times 5$ ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.</p> <p>Pits impracticable.</p> <p>Ascend.</p>
51.70	<p>Top of sandstone spur, projects W.</p> <p>Descend.</p>
72.00	<p>Bottom of ravine, 100 ft. deep, course S.W.</p> <p>Ascend.</p>
79.50	<p>Begin ascent over sandstone ledges, bearing N.E. and S.W.</p>
80.00	<p>Point for sec. cor. falls on the smooth surface of a sandstone ledge, I cut a cross, X, at exact point for cor. of secs. 17-18-19 and 20, marked 3 grooves on S. and 5 grooves on E. sides of cross, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.</p> <p>Pits impracticable.</p> <p>Land mountainous.</p> <p>Soil, rocky 3rd. rate.</p> <p>Timber, scattering cedar and pinon.</p> <p>Mountainous land on 80.00 chs.</p>

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	
	N.89°57'E., on a random line, bet. secs. 17 and 20.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.06	Intersect N. and S. line, 3 lks. N. of the cor. of secs. 16-17-20 and 21.
	Thence I run
	S.89° 58' W., on a true line,
	Bet. secs. 17 and 20.
	Over rocky land descend through scattering cedar and pinon timber.
3.00	Bottom of ravine, 200 ft. deep, course S.W.
	Begin abrupt ascent.
30.00	Top of spur, projects S.
	Descend.
33.50	Head of ravine, course S.
	Ascend.
40.03	Set a sandstone 20x10x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which
	A pinon 8 ins. diam., bears N.46°30'E., 65 lks. dist., marked $\frac{1}{4}$ S.17 B.T.
	No other trees within limits, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
	Pits impracticable.
41.50	Top of ridge, bears N.E. and S.W.
	Descend.
75.00	Bottom of ravine, 100 ft. deep, course S.W.
	Ascend.
79.00	Begin ascent over sandstone ledges bearing N.E. and S.W.
80.06	The cor. of secs. 17-18-19 and 20.
	Land mountainous.
	Soil, rocky 3rd. and 4th. rate.
	Timber, scattering cedar and pinon.
	Mountainous land on 80.06 chs.
	October 27: At this cor. I set off 12°39' S. on decl. arc; and at 11h.44m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37° 20' N.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	S.89° 58'W., on a random line, bet. secs. 18 and 19.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
79.75	Intersect W. Bdy. of Tp. 5 lks. S. of the cor. of secs. 13-18-19 and 24, heretofore described.
	Thence I run
	East, on a true line,
	Bet. secs. 18 and 19.
	Descend gradually through dense artemisia, rabbit brush and gease wood.
18.00	Wash, 6x6 ft. course S.
	Begin gradual ascent.
36.50	Top of spur, projects S.W.
	Descend.
39.75	Set a sandstone 20x10x8 ins., 15 ins. in the ground; for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
	Pits impracticable.
43.00	Mouth of ravine, course from N.E.
	Ascend over rocky land through scattering cedar and pinon timber.
59.00	Top of ridge, bears N.E. and S.W.
	Descend over sandstone ledges.
79.75	The cor. of secs. 18-19-20 and 21.
	Land mountainous on 45.00 chs.
	balance nearly level.
	Soil, sandy loam on 30.00 chs. 2nd. rate.
	balance rocky 3rd. and 4th. rate.
	Timber, scattering cedar and pinon on 36.75 chs.
	Mountainous and or dense undergrowth on 79.75 chs.

	N.0° 03'W., bet. secs. 17 and 18.
	Ascend over sandstone ledges.
24.00.	Top fo ridge, bears N.E. and S.W.
	Leave ledges, descend over rocky land, through scattering cedar and pinon timber.

SUBDIVISIONS OF T.40 S. R.2 W. continued.

CHAINS

- 35.50 Bottom of ravine 150 ft. deep, course S.W.
Ascend.
- 40.00 Set a sandstone 18x12x6 ins., 12 ins. in the ground,
for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$: on W. face, from which
A cedar 9 ins. diam., bears N.23°E., 6 lks. dist., marked
 $\frac{1}{4}$ S.17 B.T.
A pinon 8 ins. diam., bears N.61° W., 1.13 chs. dist.,
marked $\frac{1}{4}$ S.18 B.T.
- 46.00 Top of ridge, bears N.E. and S.W.
Descend.
- 49.50 Hollow, 50 ft. deep, course W.
Ascend.
- 53.00 Top of spur, projects W.
Descend.
- 57.25 Bottom of ravine 150 ft. deep, course S.W.
Ascend.
- 60.50 Top of spur, projects S.W.
Descend.
- 66.00 Hollow, 50 ft. deep, course S.W.
Ascend.
- 72.00 Top of spur, projects S.W.
Descend.
- 80.00 Set a sandstone 24x10x7 ins., 18 ins. in the ground,
for cor. of secs. 7-8-17 and 18, marked with 4 notches
on S. and 5 notches on E. edges, from which
A pinon 6 ins. diam., bears N.6° 30'E., 81 lks. dist.,
marked T.40 S. R.2 W. S.8 B.T.
A cedar 20 ins. diam., bears S.38°30'E., 47 lks. dist.,
marked T.40 S. R.2 W. S. 17 B.T.
A pinon 7 ins. diam., bears S.30° W., 81 lks., dist.,
marked T.40 S. R.2 W. S.18 B.T.
A pinon 7 ins. diam., bears N.19° W., 52 lks. dist.,
marked T.40 S. R. 2 W. S. 7 B.T.
Land mountainous.
Soil, rocky 3rd. and 4th. rate.

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

Timber, scattering cedar and pinon.

Mountainous land on 80.00 chs.

October 27, 1902.

October 28: At 8 a.m., l.m.t., I set off $37^{\circ} 21' W.$ on lat. arc; $12^{\circ} 57' S.$ on decl. arc; and determine a true meridian with the solar, at the cor. of secs. 7-8-17 and 18.

Thence I run

$N. 29^{\circ} 58' E.$, on a random line, bet. secs. 8 and 17.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.02 Intersect N. and S. line, 7 lks. N. of the cor. of secs. 8-9-16 and 17.

Thence I run

$N. 89^{\circ} 59' W.$, on a true line,

Bet. secs. 8 and 17.

Descend over sandstone ledges.

3.00 Bottom of ravine, 100 ft. deep, course N.W.

Ascend over rocky land, through scattering cedar and pinon timber.

27.00 Top of rocky spur, projects N.E.

Descend.

40.01 Bottom of ravine, 150 ft. deep, course N.E.

Set a sandstone $18 \times 10 \times 6$ ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which

A pinon 8 ins. diam., bears North, 45 lks. dist., marked $\frac{1}{4}$ S. 8 B.T.

A pinon 15 ins. diam., bears S. $10^{\circ} E.$, 50 lks., dist., marked $\frac{1}{4}$ S. 17 B.T.

Ascend.

61.00 Top of ridge, bears N.W. and S.E.

Descend.

67.00 Head of ravine, course S.W.

Ascend.

71.00 Top of ridge, bears N.E. and S.W.

SUBDIVISIONS OF T.40 S. R.2 W. Continued.

CHAINS

Descend.

80.02 The cor.of secs.7-8-17 and 18.

Land mountainous.

Soil,rocky 3rd and 4th.rate.

Timber,scattering cedar and pinon.

Mountainous land on 80.02. chs.

 West,on a random line,bet.secs.7 and 18.
40.00 Set temp. $\frac{1}{4}$ sec.cor.79.66 Intersect W.Bdy.of Tp.,5 lks.S.of the cor.of secs.
7-12-13 and 18,heretofore described.

Thence I run

S.89° 58'E.,on a true line,

Bet.secs.7 and 18.

Over rocky land,ascend through scattering cedar and
pinon timber.

1.00 Top of spur,projects S.E.

Descend.

10.50 Bottom of ravine,200 ft.deep,course S.

Ascend.

31.00 Top of ridge,bears N.and S.

Descend.

39.00 Bottom of ravine,100 ft.deep,course S.

Ascend.

39.66 Set a sandstone 15x8x8 ins.,10 ins.in the ground,for

 $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on N.face,from which

A pinon 4 ins.diam.,bears N.2°E.,50 lks.dist.,marked

 $\frac{1}{4}$ S.7 B.T.

A cedar 6 ins.diam.,bears S.29° E.,4 lks.dist.,marked

 $\frac{1}{4}$ S.18 B.T.

51.50 Top of ridge,bears N.and S.

Descend.

61.50 Bottom of ravine,200 ft.deep,course S.

Ascend.

71.00 Top of spur,projects S.W.

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SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS	
	Descend.
76.50	Bottom of ravine, 100 ft. deep, course S.W.
	Ascend.
79.66	The cor. of secs. 7-8-17 and 18.
	Land mountainous.
	Soil, rocky 3rd. and 4th. rate.
	Timber, scattering cedar and pinon.
	Mountainous land on 79.66 chs.
	October. 28: At this cor. I set off 12° 52' S. on decl.
	arc, and at 11h. 44m., a.m., 1.m.t., observe the sun on
	the meridian, the resulting lat. is 37° 21' N.
	N. 0° 03' W., bet. secs. 7 and 8.
	Over rocky land descend through scattering cedar
	and pinon timber.
3.00	Bottom of ravine, 75 ft. deep, course S.W.
	Ascend.
14.00	Top of ridge, bears N.W. and S.E.
	Descend.
25.00	Bottom of ravine, 150 ft. deep, course S.E.
	Ascend.
40.00	Set a sandstone 15x12x8 ins., 10 ins. in the ground,
	for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
	A cedar 14 ins. diam., bears S. 57° W., 1.05 chs. dist.,
	marked $\frac{1}{4}$ S. 7 B.T.
	A cedar 8 ins. diam., bears N. 84° E., 1.25 chs. dist.,
	marked $\frac{1}{4}$ S. 8 B.T.
67.00	Top of ridge, bears E. and W.
	Descend.
76.75	Bottom of ravine, 150 ft. deep, course E.
	Ascend.
80.00	Set a sandstone 18x12x8 ins., 12 ins. in the ground, for
	cor. of secs. 5-6-7 and 8, marked with 5 notches on S.
	and E. edges, from which

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

A pinon 10 ins.diam., bears N.19° 30'E., 80lks.dist.,
marked T.40 S. R.2 W. S.5 B.T.

A pinon 10 ins.diam., bears S.34°E., 39 lks.dist.,
marked T.40 S. R.2 W. S.8 B.T.

A cedar 8 ins.diam., bears S.67° 30'W., 59 lks.dist.,
marked T.40 S. R.2 W. S.7 B.T.

A pinon 8 ins.diam., bears N.58°W., 61 lks.dist.,
marked T.40 S. R.2 W. S.6 B.T.

Land mountainous.

Soil, rocky 3rd. and 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.00 cha.

October 28, 1902.

October 29: At 8 a.m., l.m.t., I set off 37°22'N. on
lat. arc; 13°14'S. on decl. arc; and determine a true
meridian with the solar, at the cor. of secs. 5-6-7
and 8.

Thence I run

S. 89° 59'E., on a random line, bet. secs. 5 and 8.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

30.04 Intersect N. and S. line, 3 lks. N. of the cor. of secs.
4-5-8 and 9.

Thence I run

N. 89° 58'W., on a true line,

bet. secs. 5 and 8.

Over rocky land, ascend through scattering cedar and
pinon timber.

29.00 Top of ridge, bears N.E. and S.W.

Descend.

40.02 Set a sandstone 18x18x3 ins., 12 ins. in the ground, for
 $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which

A cedar 8 ins.diam., bears N.6°E., 10 lks. dist., marked
 $\frac{1}{4}$ S.5 B.T.

A cedar 4 ins.diam., bears S.80°W., 47 lks. dist., marked

SUBDIVISIONS OF T.40 S., R.2 W., continued.

CHAINS

- $\frac{1}{2}$ S.8 B.T.
- 67.00 Bottom of ravine, 200 ft. deep, course N.E.
Ascend.
- 80.04 The cor. of secs. 5-6-7 and 8.
Land mountainous.
Soil, rocky 3rd. and 4th. rate.
Timber, scattering cedar and pinon.
Mountainous land on 80.04 chs.
-
- N. 29° 58' W. on a random line, bet. secs. 6 and 7.
- 40.00 Set temp. $\frac{1}{2}$ sec. cor.
- 79.57 Intersect W. Bdy. of Tp., 3 lks. N. of the cor. of secs. 1-6-7 and 12, heretofore described, Thence I run
S. 89° 59' E., on a true line,
Bet. secs. 6 and 7.
Over rocky land, descend through scattering cedar and pinon timber.
- 10.00 Bottom of ravine, 200 ft. deep, course S.W.
Ascend.
- 14.00 Top of rocky ridge, bears N.E. and S.W.
Begin abrupt descent over broken sandstone ledges, bearing N.E. and S.W.
- 39.57 Set a sandstone 15x10x10 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
Pits impracticable.
- 79.57 The cor. of secs. 5-6-7 and 8, 600 ft. below top of ridge.
Land mountainous.
Soil, rocky 3rd. and 4th. rate.
Timber, scattering cedar and pinon.
Mountainous land on 79.57 chs.
October 29: At this cor. I set off 13° 18' S. on decl. arc, and at 11h. 44m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is 37° 22' N.

GENERAL DESCRIPTION OF T.40 S.,R.2 W.

This township is mountainous throughout, and is of a sandstone formation.

The soil of the entire township, with the exception of the bottoms of Kitchen Canon and Paria. River, is rocky and is covered with a scattering growth of cedar and pinon timber and nutritious grasses, making it an excellent range.

The soil of the bottoms of Kitchen Canon and Paria. River, is a sandy loam and will produce crops by irrigating.

The township is watered by the Paria. River in the eastern portion, Deer Creek along the N. Bdy. and by several springs.

The N.E. portion of this township is nearly inaccessible, on account sandstone ledges and box canons, and was not surveyed.

All the settlers in this township are located in Kitchen Canon as follows:

Eugene Potter in N.W. $\frac{1}{4}$ sec. 33.

No land under cultivation.

Value of improvements \$ 400.00

Abner W. Potter in S.E. $\frac{1}{4}$ sec. 30.

Land under cultivation 10.00 acres.

Value of improvements \$ 300.00

Edward Reynolds in S.W. $\frac{1}{4}$ sec. 30.

No land under cultivation.

Value of improvements \$ 200.00.

Murray Averett's claim could not be found.

There is no mineral found in this township.

For latitude and departure table, see Boundaries of T.40 S., R.2 W.

Harvey L. Hewitt
U.S. DEPUTY SURVEYOR.

SUBDIVISIONS OF T.40 S., R.2 W., concluded.

- CHAINS
- N.0° 03'W., on a random line, bet. secs. 5 and 6.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.01 Intersect N. Bdy. of Tp., 3 lks. E. of the cor. of secs. 5-6-31 and 32, heretofore described.
- Thence I run
- S.0° 04'E., on a true line,
- Bet. secs. 5 and 6.
- Over rocky land, ascend through scattering cedar and pinon timber.
- 19.00 A sandstone pinnacle, 25 ft. base, 50 ft. high, bears E., 15 lks. dist.
- 40.01 Set a sandstone 18x15x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
- A pinon 9 ins. diam., bears N.47°W., 9 lks. dist., marked $\frac{1}{4}$ S.6 B.T.
- A pinon 10 ins. diam., bears S.71° 30'E., 64 lks. dist., marked $\frac{1}{4}$ S.5 B.T.
- 42.00 Top of ridge, bears N.E. and S.W.
- Descend.
- 54.50 Bottom of ravine, 100 ft. deep, course N.E.
- Ascend.
- 75.00 Top of ridge, bears E. and W.
- Descend.
- 80.01 The cor. of secs. 5-6-7- and 8.
- Land mountainous.
- Soil, rocky 3rd and 4th. rate.
- Timber, scattering cedar and pinon.
- Mountainous land on 80.01 chs.

October 29, 1902.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____

showing the respective capacities in which they acted: _____ Chairman, _____ Chairman, _____ Moundman, _____ Moundman, _____ Arman, _____ Arman, _____ Flagman.

of final affidavits submitted

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____, United States Deputy Surveyor, in surveying all those parts or portions of the _____

_____ of the _____ meridian, _____ of _____, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for _____

R. H. M.

of final affidavits submitted

_____ Chairman, _____ Chairman, _____ Moundman, _____ Moundman, _____ Arman, _____ Arman, _____ Flagman.

Subscribed and sworn to before me this _____ day of _____, 189 _____ }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____ United States Surveyor General for _____, bearing date of the _____ day of _____, 189 _____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

_____ of the _____ meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Safar

United States Deputy Surveyor

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189 _____



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salisbury, Cal., February 26, 1902

The foregoing field notes of the survey of *the subdivision lines of Township 40 South Range 2 West of the Salt Lake Base & Meridian, Cal.*

executed by *Harvey Heist* under his contract No. *251*, dated *February 12, 1902*, 189 _____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward M. Anderson
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General

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4-679.

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BOOK A-297

FILED

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107

FIELD NOTES

RE
OF THE SURVEY OF THE

S-U-B-D-I-V-I-S-I-O-N-S

of

Township No. 41. South, Range No. 2 West

Of the SALT LAKE BASE AND Meridian,

in the state of Utah,

AS SURVEYED BY

HARVEY D. HEIST, United States Deputy Surveyor,

Under his Contract No. 251, dated February 12, 1902.

Survey commenced October 17, 1902

Survey completed October 17, 1902

Recovery - Salt Lake 1-06-00 ✓
Aug - 2-60 ✓

NAMES AND DUTIES OF ASSISTANTS.

WILLIAM WALQUIST

Chairman

GEORGE WILSON

Chairman

JOHN KITCHEN

Moundman

EARL V. WOOLLEY

Moundman

JAMES POTTER

Arman

OLEY SORENSON

Flagman

BOOK A-297

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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

We, William Walquist and George Wilson do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the subdivisions of T.41 S., R.2 W. of the Salt Lake Base and Meridian, Utah.

William Walquist, Chainman. George Wilson, Chainman.

Subscribed and sworn to before me this 17th day of October, 1902.

Harvey L. Heist, U.S. Deputy Surveyor



We, John Kitchen and Earl V. Woolley do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of the subdivisions of T.41 S., R.2 W. of the Salt Lake Base and Meridian, Utah.

John Kitchen, Moundman. Earl V. Woolley, Moundman.

Subscribed and sworn to before me this 17th day of October, 1902.

Harvey L. Heist, U.S. Deputy Surveyor



We, I, James Potter do solemnly swear that we will well and truly perform the duties of axman in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of the subdivisions of T.41 S., R.2 W. of the Salt Lake Base and Meridian, Utah.

James Potter, Axman.

Subscribed and sworn to before me this 17th day of October, 1902.

Harvey L. Heist, U.S. Deputy Surveyor



I, Oley Sorenson do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of the subdivisions of T.41 S., R.2 W. of the Salt Lake Base and Meridian, Utah.

Oley Sorenson, Flagman.

Subscribed and sworn to before me this 17th day of October, 1902.

Harvey L. Heist, U.S. Deputy Surveyor



RESURVEY OF THE SUBDIVISIONS OF T.41 S., R.2 W.

CHAINS

Survey commenced, October 17, 1902 and executed with the instrument described in book "H" of this survey. I know the instrument from recent observation made, October 10 and 11, and recorded in book "J" of this survey.

X Knowing the line bet. secs. 1 and 2, will not close within limits, on the N. Bdy. of the Tp., the 8th. stan. Par. S., I proceed as follows:

At the witness cor. of secs. 1-2-11 and 12, which is a red sandstone boulder $4 \times 2\frac{1}{2} \times 1$ ft. above ground, marked and witnessed as described by the surveyor general, set 6.75 chs. E. of the true point for cor.

At 3 p.m., l.m.t., I set off $37^{\circ}16'$ N. on lat. arc; $9^{\circ}09'$ S. on decl. arc, and determine a true meridian.

This cor. is set at the foot of a sandstone bluff, bearing N.W. and S.E.

Thence I run

North, on a 6.75 chs. E., offset line.

Over sandy bottom land.

18.00 Offset 6.75 chs. W. to true line.

Foot of sandstone bluff, bears N.W. and S.E.

Thence

North, on a true line, bet. secs. 1 and 2.

Over sandy bottom land, through dense artemisia and grease wood.

39.40 Parva. River, 45 lks. wide, 15 lks. deep, course S.E.

40.00 On N. bank of river.

Set a sandstone $16 \times 10 \times 10$ ins., 11 ins. in the ground, for reestablished $\frac{1}{4}$ sec. cor, marked $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

From this point the witness cor. to the $\frac{1}{4}$ sec. cor., bears $N.89^{\circ}W.$, 8.10 chs. dist., which is a sandstone $10 \times 10 \times 9$ ins. above the ground, marked and witnessed as described by the surveyor general. I destroy this witness corner. Begin gradual ascent.

57.50 Leave bottom land, bears N.W. and S.E.

RESURVEY OF THE SUBDIVISIONS OF T.41 S.,R.2 W.,concluded.

CHAINS	Begin abrupt ascent,over rocky land,through scattering cedar and pinon timber.
63.50	Top of rocky spur,projects W. Begin abrupt descent.
71.00	Bottom of ravine,300 ft.deep,course S.W. Begin abrupt ascent.
86.00	Intersect. Eighth Standard Parallel South,2.60 chs. E.of the stan.cor.of secs.35 and 36,heretofore described. Set a sandstone 24x20x4 ins.,18 ins.in the ground, for closing cor.of secs.1 and 2,marked C.C.on S., with 1 groove on E.and 5 grooves on W.faces,and raise a mound of stone 2 ft.base,1½ ft.high,S.of cor. Pits impracticable. Land,bottoms or mountainous. Soil,sandy and rocky 3rd and 4th.rate. Timber,scattering cedar and pinon on 28.50 chs. Mountainous land and dense undergrowth on 86.00 chs.

October 17,1902.

General Description of sec.1,T.41 S.R.2 W.

The land in this sec.is mountainous,the S.E.portion is sandy bottom land along the Paria River and the balance is broken sandstone ledges covered with scattering cedar and pinon timber. There is no mineral found in this sec. There are no settlers in this sec.

Harvey L. Geist

U.S.DEPUTY SURVEYOR.

There being no notary public or other officer authorized to administer oaths within a reasonable distance at the beginning or ending of this survey, in order to save time and expense I administer the preliminary and final oaths myself.

Harvey L. Geist

U.S.DEPUTY SURVEYOR

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Harvey D. Heist, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the subdivisions of T. 41 S., R. 2 W. of the Salt Lake Base and Meridian, Utah showing the respective capacities in which they acted:

- William Walquist, Chairman.
George Wilson, Chairman.
John Kitchen, Moundman.
Earl V. Woolley, Moundman.
James Potter, Arman.
Oley Sorenson, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Harvey D. Heist, United States Deputy Surveyor, in surveying all those parts or portions of the subdivisions of township No. 41 south, range No. 2 west,

of the Salt Lake Base and meridian, in the state of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah.

- William Walquist, Chairman.
George Wilson, Chairman.
John Kitchen, Moundman.
Earl V. Woolley, Moundman.
James Potter, Arman.
Oley Sorenson, Flagman.

Subscribed and sworn to before me this 17th day of October, 1902

Harvey D. Heist, U.S. Deputy Surveyor



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Harvey D. Heist, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Edward H. Anderson United States Surveyor General for Utah, bearing date of the 12th day of February, 1902, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the subdivisions of Township No. 41 South, Range No. 2 West, of the Salt Lake Base and meridian, in the state of Utah, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Utah, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Harvey D. Heist
United States Deputy Surveyor.

Subscribed by said Harvey D. Heist, and sworn to before me }
this 25th day of March 1902, 189

Edward H. Anderson
Surveyor General for Utah



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Walk Lake, Utah, February 26, 1904.
The foregoing field notes of the survey of the subdivisions of Township No. 41 South, Range No. 2 West of the Salt Lake Base and Meridian, Utah,

executed by Harvey D. Heist under his contract No. 251, dated February 12, 1902, 189, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward H. Anderson
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____ has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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FIELD NOTES

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OF THE SURVEY OF THE

E-I-G-H-T-H S-T-A-N-D-A-R-D P-A-R-A-L-L-E-L S-O-U-T-H

through

Range No. 3 West.

Of the Salt Lake Base and Meridian,

in the state of Utah.

AS SURVEYED BY

Harvey D. Heint, United States Deputy Surveyor,

Under his Contract No. 251, dated February 12, 1902, 189

Survey commenced October 29, 1902, 189

Survey completed October 30, 1902, 189

6-161

5th - high 5-29-50 v
low 30-50 /

NAMES AND DUTIES OF ASSISTANTS.

Oley Sorenson

Chainman

Earl V. Woolley

"

William Walquist

"

George Wilson

"

John Kitchen

Moundman

Earl V. Woolley

"

John Kitchen

Axman

James Potter

"

Oley Sorenson

Flagman

Supplementary affidavits Sub No. I. 405. R. W.

BOOK A-297

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12	13	14	15	16	17
18	19	20	21	22	23
24	25	26	27	28	29
30	31	32	33	34	35

Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, and do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., Chainman.

....., Chainman.

Subscribed and sworn to before me this } day of, 189..... }



WE, and do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., Moundman.

....., Moundman.

Subscribed and sworn to before me this } day of, 189..... }



WE, and do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., Axman.

....., Axman.

Subscribed and sworn to before me this } day of, 189..... }



I,, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., Flagman.

Subscribed and sworn to before me this } day of, 189..... }



EIGHTH STANDARD PARALLEL SOUTH, through RANGE 3 W.

Survey commenced, October 29, 1902, and executed with the instrument described in book "H" of this survey. I begin at the Standard cor. to Tp. 40 S., Rs. 2 and 3 W. heretofore described, in approximate Latitude $37^{\circ}17'18''$ N., Longitude $112^{\circ}06'51''$ W.,

I examine and correct the adjustments of the transit, then to test the solar apparatus, by comparing the results of observations on the sun, made during a.m. and p.m. hours, with a true meridian determined by observations on Polaris, I proceed as follows:

At 4 p.m., l.m.t., I set off $37^{\circ}17'$ N. on lat. arc; $13^{\circ}20'$ S. on decl. arc, and mark the meridian thus determined with the solar, by a cross on a stone firmly set in the ground, 5 chs. N. of the instrument.

October 29, 1902.

October 30: At 4h.45 m., a.m., l.m.t., I observe Polaris at western elongation, in accordance with Manual of instructions, and mark the line thus determined by a tack driven in a wooden peg set in the ground, 5 chs. N. of my station.

At 7 a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ}31'$ to the east and mark the meridian determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.2 ins. west of the mark determined by the solar.

At 8 a.m., l.m.t., I set off $37^{\circ}17'$ N. on lat. arc; $13^{\circ}35'$ S. on decl. arc, and mark the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.3 ins. west of the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations, defines positions for meridians, about $0'11''$ east, and $0'16''$ west of the meridian established by the Polaris observation; therefore, I conclude that the adjustments

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 3 W., continued.

CHAINS

of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8 a.m. is N.15° 30' W., the angle thus determined gives the mean mag. decl. 15° 30' east.

I lay off from the meridian, an angle of 90°, from north to west, and run

West, on the tangent, S. of sec. 36.

Over level bottom land, through dense artemisia.

30.50 Leave bottom land bears N. and S.

Begin abrupt ascent over rocky land, through scattering cedar and pinon timber.

Difference bet. measurement of 40.00 chs. by two sets of chainmen, is 6 lks., position of middle point

By 1st. set, 39.97 chs.,

By 2nd. set, 40.03 chs., the mean of which is

40.00 N. .02 lk. from the tangent.

Set a sandstone 18x10x6 ins., 12 ins. in the ground, for stan. $\frac{1}{4}$ sec. cor., marked S.C. $\frac{1}{4}$ S. on N. face, from which

A cedar 6 ins. diam., bears N.44° W., 17 lks. dist., marked S.C. $\frac{1}{4}$ S. 36 B.T.

A cedar 6 ins. diam., bears N.47° E., 70 lks. dist., marked S.C. $\frac{1}{4}$ S. 36 B.T.

51.00 Top of ridge, 800 ft. above Tp. cor., bears N.E. and S.W.

Begin abrupt descent over sandstone ledges.

73.50 Bottom of ravine, 200 ft. deep, course N.W.

Ascend over sandstone ledges.

Difference bet. measurement of 80.00 chs., by two sets of chainmen, is 12 lks., position of middle point

By 1st. set, 79.94 chs.

By 2nd. set, 80.06 chs., the mean of which is

80.00 N. .08 lks. from the tangent.

Top of a sandstone spur, projects N.

Set a sandstone 24x14x3 ins., 18 ins. in the ground, for stan. cor. of secs. 35 and 36, marked S.C. on N., with 5

49.50
50.50

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 3 W., continued.

CHAINS

grooves on W. and 1 groove on E. faces, from which
A pinon 6 ins. diam., bears N. 27° W., 29 lks. dist.,
marked T. 40 S. R. 3 W. S. 35 B. T.

No other trees within limits, and raise a mound of
stone 2 ft. base, 1½ ft. high, N. of cor.

Pits impracticable.

Land mountainous.

Soil, sandy on 30.50 chs. 3rd. rate.

balance rocky 4th. rate.

Timber, scattering cedar and pinon on 49.50 chs.

Mountainous land on 49.50 chs.

S. 89° 59' W. on the tangent, S. of sec. 35.

Descend abruptly over sandstone ledges.

6.50 Bottom of ravine, 100 ft. deep, course N.

Abrupt ascent over sandstone ledges.

7.50 Leave sandstone ledges bear N. and S.

Begin gradual ascent through dense artemisia and
scattering cedar and pinon timber.

37.50 Top of spur, projects S.

Descend.

Difference bet. measurement of 40.00 chs. by two sets
of chainmen is 8 lks., position of middle point
By 1st. set, 40.04 chs.

By 2nd. set, 39.96 chs., the mean of which is

40.00 N. 1.7 lks. from the tangent.

Set a sandstone 24x12x6 ins., 18 ins. in the ground,
for stan. ¼ sec. cor., marked S. C. ¼ S. on N. face, from which
A pinon 5 ins. diam., bears N. 61° W., 42 lks. dist.,
marked S. C. ¼ S. 35 B. T.

A cedar 5 ins. diam., bears N. 59° E., 48 lks. dist.,
marked S. C. ¼ S. 35 B. T.

64.00 Bottom of hollow, 100 ft. deep, course S.

Ascend.

Difference bet. measurement of 80.00 chs. by two sets

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 3 W., continued.

CHAINS

of chainmen, is 6 lks., position of middle point

By 1st. set, 79.97 chs.,

By 2nd. set, 80.03 chs., the mean of which is

80.00 N. 3.1 lks. from the tangent.

Set a sandstone 18x10x8 ins., 12 ins. in the ground, for stan. cor. of secs. 34 and 35, marked S.C. on N., with 4 grooves on W. and 2 grooves on E. faces, and raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor.

Pits impracticable.

Land rolling.

Soil, sandy and rocky 3rd. rate.

Timber, scattering cedar and pinon.

Dense undergrowth on 80.00 chs.

S. 89° 58' W., on the tangent, S. of sec. 34.

Ascend through dense artemisia and scattering cedar and pinon timber.

6.00 Top of spur, projects S.

Descend.

10.00 Bottom of ravine, 100 ft. deep, course S.E.

Begin abrupt ascent.

23.00 Top of bluff, 200 ft. high, bears N. and S.

Begin abrupt descent over sandstone ledges, bearing N. and S.

31.00 Foot of ledges and abrupt descent, bears N. and S.

Begin gradual descent.

Difference bet. measurement of 40.00 chs. by two sets of chainmen, is 10 lks., position of middle point

By 1st. set, 40.05 chs.

By 2nd. set, 39.95 chs., the mean of which is

40.00 N. 0.475 lks. from the tangent.

Set a sandstone 30x6x5 ins., 23 ins. in the ground, for stan. ¼ sec. cor., marked S.C. ¼ S. on N. face, and raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor.

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 3 W., continued.

CHAINS

- Pits impracticable.
- 45.00 Enter heavy cedar and pinon timber, bears N. and S.
- 74.50 Leave timber, bears N.E. and S.W.
Enter bottom, bears N.E. and S.W.
Difference bet. measurement of 80.00 chs., by two sets of chainmen, is 4 lks., position of middle point,
By 1st. set, 80.02 chs.
By 2nd. set, 79.98 chs., the mean of which is
- 80.00 N. 6.8 lks. from the tangent.
Set a sandstone 18x10x6 ins., 12 ins. in the ground, for stan. $\frac{1}{4}$ sec. cor., marked S.C. on N., with 3 grooves on E. and W. faces, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
Pits impracticable.
Land rolling.
Soil, sandy and rocky 3rd. rate.
Timber, heavy cedar and pinon on 29.50 chs.
Heavily timbered or dense undergrowth on 80.00 chs.
October 30: At this cor. I set off $13^{\circ} 39' S.$ on decl. arc, and at 11h.44m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat, is $37^{\circ} 17' N.$
-
- S. $89^{\circ} 57' W.$, on the tangent, S. of sec. 33.
Over bottom land, through dense artemisia, grease wood and rabbit brush.
- 9.40 Leave bottom, bears N.E. and S.W.
Ascend through scattering cedar and pinon timber.
- 27.00 Top of spur, projects S.
Descend..
- 35.00 Wash, 1.00 ch. wide, 15 ft. deep, in bottom of canon, 200 ft. deep, course S.
Leave timber.
Over bottom land in canon.
Difference bet. measurement of 40.00 chs., by two sets of chainmen is 8 lks., position of middle point

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 3 W., continued.

CHAINS

- By 1st. set, 40.04 chs.,
 By 2nd. set, 39.96 chs., the mean of which is
 40.00 N. $9\frac{1}{4}$ lks. from the tangent.
 Set a sandstone 18x15 x6 ins., 12 ins. in the ground,
 for stan. $\frac{1}{4}$ sec. cor., marked S.C. $\frac{1}{4}$ S. on N. face, and raise
 a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
 Pits impracticable.
- 47.00 Leave bottom, bears N.W. and S.E.
 Ascend through scattering cedar and pinon timber.
 Difference bet. measurement of 80.00 chs., by two sets
 of chainmen is 6 lks., position of middle point
 By 1st. set, 79.97 chs.
 By 2nd. set, 80.03 chs., the mean of which is
 80.00 N. 12 lks. from the tangent.
 Set a cedar post 3 ft. long, 4 ins. sq. with marked stone
 24 ins. in the ground, for stan. cor. of secs. 32 and 33,
 marked
 S C T 40 S R 3W on N.,
 S. 33 on E., and
 S. 32 on W. face, with 2 grooves on W. and 4 grooves on
 E. face, dig pits, 24x18x12 ins., crosswise on each
 line, E. and W., 3 ft., and N. of post, 7 ft. dist.; and
 raise a mound of earth, 4 ft. base, 2 ft. high, N. of cor.
 Land rolling.
 Soil, sandy and rocky, 3rd. rate.
 Timber, scattering cedar and pinon.
 Dense undergrowth on 80.00 chs.
-
- S. $89^{\circ} 56' W.$, on the tangent, S. of sec. 32.
 Over rolling land, ascend through dense artemisia and
 scattering cedar and pinon timber.
- 39.50 Top of spur, projects S.W.
 Descend.
 Difference bet. measurement of 40.00 chs. by two sets
 of chainmen, is 2 lks., position of middle point

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 3 W., continued.

CHAINS

By 1st. set, 40.01 chs.

By 2nd. set, 39.99 chs., the mean of which is

40.00 N. 15 $\frac{1}{2}$ lks. from the tangent.

Set a sandstone 24x10x5 ins., 18 ins. in the ground, for stan. $\frac{1}{4}$ sec. cor., marked S.C. $\frac{1}{4}$ S. on N. face, from which a pinon 6 ins. diam., bears N. 20° W., 65 lks. dist., marked S.C. $\frac{1}{4}$ S. 32 B.T.

No other trees within limits, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.

Pits impracticable.

43.00 Bottom of ravine 150 ft. deep, course S.

Ascend.

62.00 Top of spur, projects S.

Descend.

69.00 Bottom of ravine, 100 ft. deep, course S.

Ascend.

73.00 Top of spur, projects S.

Descend.

Difference bet. measurement of 80.00 chs., by two sets of chainmen, is 12 lks., position of middle point by 1st. set, 80.06 chs.

By 2nd. set, 79.94 chs., the mean of which is

80.00 N. 19 lks. from the tangent.

Set a sandstone 18x15x6 ins., 12 ins. in the ground, for stan. $\frac{1}{4}$ sec. cor., marked S.C. $\frac{1}{4}$ S. on N. face, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.

Pits impracticable.

Land rolling.

Soil, sandy and rocky 3rd. rate.

Timber, scattering cedar and pinon.

Dense undergrowth on 80.00 chs.

S. 89° 56' W., on the tangent, S. of sec. 31.

Descend through dense artemisia and scattering cedar and pinon timber.

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 3 W., continued.

CHAINS	
27.00	Bottom of ravine, 75 ft. deep, course S. Ascend.
29.50	Top of spur, projects S. Descend.
	Difference bet. measurement of 40.00 chs., by two sets of chainmen, is 8 lks., position of middle point
	By 1st. set, 40.04 chs.
	By 2nd. set, 39.96 chs., the mean of which is
40.00	N. $22\frac{1}{2}$ lks, from the tangent.
	Set a sandstone 36x10x8 ins., 27 ins. in the ground, for stan. $\frac{1}{4}$ sec. cor., marked S.C. $\frac{1}{4}$ S. on N. face, dig pits, 18x18x12 ins., E. and W. of stone, 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
78.40	Bottom of ravine, 100 ft. deep, course S.W. Ascend.
	Difference bet. measurement of 80.00 chs., by two sets of chainmen is 10 lks., position of middle point
	By 1st. set, 80.05 chs.
	By 2nd. set, 79.95 chs., the mean of which is
80.00	N. 27 lks, from the tangent.
	Set a sandstone 18x10x8 ins., 12 ins. in the ground, for Standard cor. of Tp. 40 S., Rs. 3 and 4 W., marked S.C. 40 S. on N.,
	3 W. on E., and 4 W. on W. face, with 6 grooves on N., E. and W. faces; from which
	A cedar 8 ins. diam., bears N. 38° E., 1.12 chs. dist., marked T. 40 S. R. 3 W. S. 31 B.T.
	No other trees within limits, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
	Pits impracticable.
	Land rolling.
	Soil, sandy and rocky 3rd. rate.
	Timber, scattering cedar and pinon.
	Dense undergrowth on 80.00 chs.

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 3 W., concluded.

GENERAL DESCRIPTION

Township 40 S., R. 3 W., is mountainous, a sandstone mesa 1500 ft. above the surrounding country, about 4 miles long, N. and S. and 2 miles wide, E. and W., is situated in this township, about 1 1/2 miles north of the S. Bds. of secs. 33 and 34.

This mesa is said to be inaccessible.

There is no water in this township.

Henry L. Geist

U. S. DEPUTY SURVEYOR

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____

_____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____

showing the respective capacities in which they acted:

For final affidavits see book O. P. 40, S. R. H. W.

..... Chairman.

..... Chairman.

..... Moundman.

..... Moundman.

..... Arman.

..... Arman.

..... Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____

_____, United States Deputy Surveyor, in surveying all those parts or portions of the _____

_____ of the _____ meridian, _____ of _____, which are represented in the foregoing field notes as having been surveyed by him and under his direction, and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for _____

For final affidavits see book O. P. 40, S. R. H. W.

..... Chairman.

..... Chairman.

..... Moundman.

..... Moundman.

..... Arman.

..... Arman.

..... Flagman.

Subscribed and sworn to before me this _____ day of _____, 189 _____ }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____ United States Surveyor General for _____, bearing date of the _____ day of _____, 189 _____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____

_____ of the _____ meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

J. J. [unclear] Book O. [unclear]

United States Deputy Surveyor

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189 _____



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, February 21, 1902

The foregoing field notes of the survey of *the Eighth Standard Parallel South through Range 3 West of the Salt Lake Base & Meridian, Utah*

executed by *Warney J. Beest* under his contract No. *251*, dated *February 12, 1902*, 189 _____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward H. Underhill
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General

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FIELD NOTES

OF THE SURVEY OF THE

E-I-G-H-T-H S-T-A-N-D-A-R-D P-A-R-A-L-L-E-L S-O-U-T-H

through

Range No. 4 West.

Of the Salt Lake Base and Meridian,

in the state of Utah.

AS SURVEYED BY

Harvey D. Heist, United States Deputy Surveyor,

Under his Contract No. 251, dated February 12, 1902., 189

Survey commenced October 30, 1902., 189

Survey completed October 31, 1902., 189

Std. high 6-55-83 ✓

NAMES AND DUTIES OF ASSISTANTS.

Olev Sorenson Chainman

Earl V. Woolley "

William Walquist "

George Wilson "

John Kitchen Moundman

Earl V. Woolley "

John Kitchen Axman

James Potter "

Olev Sorenson Flagman

In preliminary affidavits submitted I #405, R2 M

BOOK A-297

INDEX DIAGRAM.

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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, and do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

....., Chainman
....., Chainman

Subscribed and sworn to before me this }
day of, 189 }



WE, and do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., Moundman
....., Moundman

Subscribed and sworn to before me this }
day of, 189 }



WE, and do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., Axman
....., Axman

Subscribed and sworn to before me this }
day of, 189 }



I,, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., Flagman

Subscribed and sworn to before me this }
day of, 189 }



EIGHTH STANDARD PARALLEL SOUTH, through RANGE 4 W.

Survey commenced, October 30, 1902, and executed with the instrument described in book "H" of this survey. I begin at the Standard cor. to Tp. 40 S., Rs. 3 and 4 W. heretofore described, in approximate Latitude $37^{\circ} 17' 18''$ N., Longitude $112^{\circ} 13' 23''$ W.

I examine and correct the adjustments of the transit, then to test the solar apparatus, by comparing the results of observations on the sun, made during a.m. and p.m. hours, with a true meridian determined by observations on Polaris, I proceed as follows:

At 4 p.m., l.m.t., I set off $37^{\circ} 17' 18''$ N. on lat. arc; $13^{\circ} 41' 5''$ S. on decl. arc; and mark the meridian thus determined with the solar, by a cross on a stone firmly set in the ground, 5 chs. N. of the instrument.

October 30, 1902.

October 31: At 4h. 41m., a.m., l.m.t., I observe Polaris at western elongation, in accordance with Manual of Instructions, and mark the line thus determined, by a tack driven in a wooden peg set in the ground, 5 chs. N. of my station.

At 7a.m., I lay off the azimuth of Polaris, $1^{\circ} 31' 1''$ to the east, and mark the meridian determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.3 ins. west of the mark determined by the solar.

At 8 a.m., l.m.t., I set off $37^{\circ} 17' 18''$ N. on lat. arc; $13^{\circ} 54' 1''$ S. on decl. arc; and mark the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.3 ins. west of the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations, defines positions for meridians, about $0' 16''$ east and west of the meridian established by the Polaris observation; therefore I conclude that the adjustments of

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 4 W., continued.

CHAINS

the instrument are satisfactory.

The magnetic bearing of the true meridian at 8 a.m. is N.15° 38' W., the angle thus determined gives the mean magnetic decl. 15° 38' east.

I lay off from the meridian, an angle of 90°, from north to west, and run

West, on the tangent, S. of sec. 36.

Over sandy land, ascend through dense artemisia and scattering cedar and pinon timber.

- 7.00 Top of spur, projects S.
Descend.
- 12.00 Enter sandy bottom, bears N.W. and S.E.
- 16.00 Deer Spring Wash, 1.00 ch. wide, 15 ft. deep, course S.E.
- 17.00 Wagon road, bears N.W. and S.E.
- 21.50 Leave bottom, bears N.W. and S.E.
- 30.00 Top of ridge, bears N.W. and S.E.
Descend.
- Difference bet. measurement of 40.00 chs., by two sets of chainmen, is 6 lks., position of middle point
By 1st. set, 40.03 chs.
By 2nd. set, 39.97 chs., the mean of which is
- 40.00 N. .02 lk. from the tangent.
Set a cedar post, 3ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground, for stan. $\frac{1}{4}$ sec. cor., marked S.C. $\frac{1}{4}$ S. 36 on N. face,
dig pits, 18x18x12 ins., E. and W. of post, 3ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
- 40.50 Hollow, 50 ft. deep, course N.
Ascend.
- 54.00 Top of spur, projects N.W.
Descend.
- 56.50 Hollow, 50 ft. deep, course N.W.
Ascend.
- Difference bet. measurement of 80.00 chs., by two sets

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 4 W., continued.

CHAINS

of chainmen, is 4 lks., position of middle point
By 1st. set, 80.02 chs.

80.00

By 2nd. set, 79.98 chs., the mean of which is
N. .08 lk. from the tangent.
Set a cedar post, 3 ft. long, 4 ins. sq., with marked stone,
24 ins. in the ground, for stan. cor. of secs. 35 and 36,
marked
S.C. T. 40 S. R. 4 W. on N.,
S. 36 on E., and
S. 35 on W. face, with 1 groove on E., and 5 grooves on
W. face; dig pits, 24x18x12 ins., crosswise on each line,
E. and W., 3 ft., and N. of post, 7 ft. dist.; and raise a
mound of earth, 4 ft. base, 2 ft. high, N. of cor.
Land rolling.
Soil, sandy 3rd. rate.
Timber, scattering cedar and pinon.
Dense undergrowth on 80.00 chs.

S. 89° 59' W., on the tangent, S. of sec. 35.

Over rolling land, ascend through dense artemisia and
scattering cedar and pinon timber.

Difference bet. measurement of 40.00 chs. by two sets
of chainmen is 2 lks., position of middle point
By 1st. set, 39.99 chs.

40.00

By 2nd. set, 40.01 chs., the mean of which is
N. 1.7 lks. from the tangent.
Set a cedar post, 3 ft. long, 4 ins. sq., with marked
stone 24 ins. in the ground, for stan. $\frac{1}{4}$ sec. cor.,
from which
A cedar 6 ins. diam., bears N. 11° 30' E., 69 lks. dist.,
marked S.C. $\frac{1}{4}$ S. 35 B.T.
A cedar 8 ins. diam., bears N. 67° W., 1.67 chs. dist.,
marked S.C. $\frac{1}{4}$ S. 35 B.T.
Difference bet. measurement of 80.00 chs., by two sets
of chainmen is 4 lks., position of middle point
By 1st. set, 80.02 chs.

EIGHTH STANDARD PARALLEL SOUTH through RANGE 4 W., continued.

CHAINS

80.00

By 2nd.set, 79.98 chs., the mean of which is N.3.1 lks. from the tangent.

Set a sandstone 15x15x6 ins., 10 ins. in the ground, for stan.cor. of secs. 34 and 35, marked S.C. on N., with 2 grooves on E., and 4 grooves on W. faces; from which

A cedar 10 ins. diam., bears N.63°W., 96 lks. dist., marked T.40 S. R.4 W. S.34 B.T.

A cedar 5 ins. diam., bears N.32°E., 82 lks. dist., marked T.40 S. R.4 W. S.35 B.T.

Land rolling.

Soil, sandy 3rd. rate.

Timber, scattering cedar and pinon.

Dense undergrowth on 80.00 chs.

S.89°58'W., on the tangent, S. of sec. 34.

Over rocky land, ascend through scattering cedar and pinon timber.

2.00

Begin abrupt ascent over sandstone ledges, bearing N.W. and S.E.

9.00

Top of ledges, 200 ft. above sec. cor., bear N.W. and S.E. Ascend gradually.

17.00

Top of ridge, bears N.W. and S.E. Descend.

33.00

Begin abrupt descent over sandstone ledges, bearing N. and S.

37.00

Foot of ledges, 150 ft. below top of ridge, bear N. and S. Descend over rocky land.

Difference bet. measurement of 40.00 chs., by two sets of chainmen, is 12 lks., position of middle point

By 1st. set, 40.06 chs.

By 2nd. set, 39.94 chs., the mean of which is

40.00

N.4.75 lks. N. from the tangent.

Set a sandstone 24x6x6 ins., 18 ins. in the ground, for stan. $\frac{1}{4}$ sec. cor., marked S.C. $\frac{1}{4}$ S. on N. face, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 4 W., continued.

CHAINS	
	Pits impracticable.
54.00	Bottom of ravine, 300 ft. deep, course N.E. Ascend abruptly over rocky land.
70.00	Enter heavy cedar and pinon timber, bears N.E. and S.W.
72.00	Top of ridge, bears N.E. and S.W. Descend.
79.00	Bottom of ravine, 100 ft. deep, course N.W. Ascend. Difference bet. measurement of 80.00 chs., by two sets of chainmen, is 14 lks., position of middle point By 1st. set, 79.93 chs. By 2nd. set, 80.07 chs., the mean of which is
80.00	N. 6.8 lks. from the tangent. Set a sandstone 36x10x6 ins., 27 ins. in the ground, for stan. cor. of secs. 33 and 34, marked S.C. on N., with 3 grooves on E. and W. faces; from which A pinon 4 ins. diam., bears N. 13° E., 9 lks. dist., marked T. 40 S. R. 4 W. S. 34 B.T. A pinon 5 ins. diam., bears N. 10° W., 13 lks. dist., marked T. 40 S. R. 2 W. S. 33 B.T. Land mountainous. Soil, rocky 3rd. and 4th. rate. Heavy cedar and pinon on 10 chs. Mountainous land on 80.00 chs. October 31: At this cor. I set off 13° 59' S. on decl. arc, and at 11h. 44m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is 37° 17' N. <hr/> S. 89° 57' W., on the tangent, S. of sec. 33. Ascend through heavy cedar and pinon timber.
5.50	Top of spur, projects N.W. Descend.
35.00	Bottom of ravine, 100 ft. deep, course N.W. Ascend.
38.00	Leave heavy timber, bears N. and S. Enter dense artemisia and scattering cedar and pinon

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 4 W., continued.

CHAINS

timber.

Difference bet. measurement of 40.00 chs. by two sets of chainmen, is 8 lks., position of middle point

By 1st. set, 39.96 chs.

By 2nd. set, 40.04 chs., the mean of which is

40.00 N. $9\frac{1}{4}$ lks. from the tangent.

Set a sandstone 24x7x4 ins., 18 ins. in the ground, for stan. $\frac{1}{4}$ sec. cor., marked S.C. $\frac{1}{4}$ on N. face, from which A cedar 5 ins. diam., bears N. 20° E., 81 lks. dist., marked S.C. $\frac{1}{4}$ S. 33 B.T.

A pinon 4 ins. diam., bears N. 87° W., 73 lks. dist., marked S.C. $\frac{1}{4}$ S. 33 B.T.

42.00 Top of spur, projects N.E.

Descend.

51.00 Bottom of ravine, 100 ft. deep, course N.E.

Ascend.

52.00 Brush fence, bears N. 85° E., and S. 85° W.

55.83 The temp. cor. for Tp. 40 S., Rs. 4 and $4\frac{1}{2}$ W., set by me October 6, 1902.

As the distance to this point from the cor. of Tp. 40 S., Rs. 3 and 4 W. is less than 6 miles, I destroy the temp. cor. and continue my line.

Difference bet. measurement of 80.00 chs., by two sets of chainmen is 6 lks., position of middle point

By 1st. set, 79.97 chs.

By 2nd. set, 80.03 chs., the mean of which is

80.00 N. 12 lks. from the tangent.

Set a sandstone 24x10x3 ins., 18 ins. in the ground, for stan. cor. of secs. 32 and 33, marked S.C. on N., with 4 grooves on E., and 2 grooves on W. faces; from which A cedar 16 ins. diam., bears N. $49^{\circ} 30'$ E., 84 lks. dist., marked T. 40 S., R. $\frac{1}{4}$ W. S. 33 B.T.

A cedar 10 ins. diam., bears N. 25° W., 78 lks. dist., marked T. 40 S. R. $\frac{1}{4}$ W. S. 32 B.T.

Land rolling.

Soil, stony and sandy 3rd. rate.

Heavy timber on 38 chs.

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 4 W., continued.

CHAINS.

Heavily timbered or dense undergrowth on 80.00 chs.

over
S. 89° 57' W., on the tangent, S. of sec. 32.

Over rolling sandy land, ascend through dense artemisia and scattering cedar and pinon timber.

Difference bet. measurement of 40.00 chs., by two sets of chainmen, is 6 lks., position of middle point

By 1st. set, 39.97 chs.

By 2nd. set, 40.03 chs., the mean of which is

40.00 N. 15 $\frac{1}{4}$ lks. from the tangent.

Set a cedar post, 3 ft. long, 3 ins. sq., with marked stone, 24 ins. in the ground, for stan. $\frac{1}{4}$ sec. c. or., marked

S. C. $\frac{1}{4}$ S. 32 on N. face,

from which

A cedar 3 ins. diam., bears S. 86° E., 48 lks. dist., marked $\frac{1}{4}$ S. 5 B. T.

A cedar 12 ins. diam., bears N. 86° W., 1.26 chs. dist., marked S. C. $\frac{1}{4}$ S. 32 B. T.

50.00 Top of low ridge, bears N. E. and S. W.

Descend.

74.50 Bottom of hollow, 50 ft. deep, course N.

Ascend.

Difference bet. measurement of 80.00 chs., by two sets of chainmen, is 8 lks., position of middle point

By 1st. set, 80.04 chs., By 2nd. set, 79.96 chs., the mean of which is

80.00 N. 19 lks. from the tangent

Set a cedar post, 3 ft. long, 5 ins. sq., with marked stone, 24 ins. in the ground, for stan. cor. of secs. 31 and 32, marked

S. C. T. 40 S. R. 4 W. on N.,

S. 32 on E., and

S. 31 on W. face, with 5 grooves on E. and 1 groove on W. face; dig pits, 24 x 18 x 12 ins., crosswise on each line E. and W., 3 ft., and N. of post, 7 ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high, N. of cor.

Land rolling.

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 4 W., continued.

CHAINS

Soil, sandy 3rd. rate.

Timber, scattering cedar and pinon.

Dense undergrowth om 80.00 chs.

S. 89° 56' W., on the tangent, S. of sec. 31.

Over rolling land, ascend through dense artemisia and scattering cedar and pinon timber.

22.00 Enter heavy cedar and pinon timber, bears N.E. and S.W.

26.00 Top of ridge, bears N.W. and S.E.

Descend.

Difference bet. measurement of 40.00 chs. by two sets of chainmen is 2 lks., position of middle point

By 1st. set, 80.01 chs.

By 2nd. set, 79.99 chs., the mean of which is

40.00 N. 22 $\frac{3}{4}$ lks. from the tangent.

Set a cedar post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground, for stan. $\frac{1}{4}$ sec. cor., marked S.C. $\frac{1}{4}$ S. 31 on N. face, from which

A cedar 8 ins. diam., bears N. 8° W., 29 lks. dist., marked S.C. $\frac{1}{4}$ S. 31 B.T.

A cedar 6 ins. diam., bears N. 20° E., 36 lks. dist., marked S.C. $\frac{1}{4}$ S. 31 B.T.

80.00 As the dist. to the temp. cor. of secs. 33 and 34, T. 40 S. R. 4 $\frac{1}{2}$ W., from the stan. cor. to Tp. 40 S. Rs: 3 and 4 W., is less than 7 miles, in accordance with special instructions,

I continue the line.

102.00 Bottom of ravine, 100 ft. deep, course S.W.

Ascend.

112.50 Top of ridge, bears N.E. and S.W.

Descend.

124.75 Bottom of ravine, 100 ft. deep, course N.W.

Ascend.

126.87 No trace of the closing cor. for secs. 3 and 4, T. 41 S.

R. 4 $\frac{1}{2}$ W., can be found, therefore:

EIGHTH STANDARD PARALLEL SOUTH, through RANGE 4 W., continued.

CHAINS

N.31 [✓] lks. from the tangent.

A cedar tree, 12 ins. diam., for re-established closing cor. of secs. 3 and 4, T.41 S. R.4 $\frac{1}{2}$ W., marked

C.C. T.40 S. R.4 $\frac{1}{2}$ W. on S.,

S.3 on E., and

S.4 on W. face, with 3 grooves on E. and W. faces, from which

A pinon 6 ins. diam., bears S.48°E., 42 lks. dist., marked T.41 S. R.4 $\frac{1}{2}$ W. S.3 B.T.

A pinon 6 ins. diam., bears S.29°W., 44 lks. dist., marked T.41 S. R.4 $\frac{1}{2}$ W. S.4 B.T.

127.00 Top of spur, projects N.W.

Descend.

130.50 Ravine, 100 ft. deep, course N.W.

Ascend.

132.00 Top of spur, projects N.W.

Abrupt descent.

135.00 Bottom of ravine, 100 ft. deep, course N.W.

Ascend.

Difference bet. measure of two sets of chainmen, to the temp. stan. cor. of secs. 33 and 34, set by me October 7, 1902, is 14 lks., position of temp. cor.

By 1st. set, 135.90 chs.,

By 2nd. set, 135.76 chs., the mean of which is

135.83 N.32.75 [✓] lks. from the tangent. Intersect temp. cor. for secs. 33 and 34, T.40 S. R.4 $\frac{1}{2}$ W. set October 7, 1902. Set a gypsum stone 15x15x12 ins., 10 ins. is the ground

for Standard cor. of T.40 S. R.4 and 4 $\frac{1}{2}$ W., marked

S.C. 40 S. on N.,

4 W. on E., and

4 $\frac{1}{2}$ W. on W. face, with 6 grooves on N.E. and W. faces, from which

A pinon 7 ins. diam., bears N.66°E., 32 lks. dist., marked T.40 S. R.4 W. S. 31 B.T.

A pinon 10 ins. diam., bears N.49°W., 32 lks. dist. marked T.40 S. R.4 $\frac{1}{2}$ W. S.33 B.T.

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EIGHTH STANDARD PARALLEL SOUTH, through R.4 W., concluded.

Land, rolling and broken.

Soil, sandy and stony 3rd. rate.

Heavy cedar and pinon timber on 113.83 chs.

Dense undergrowth or heavily timbered on 135.83 chs.

October 31, 1902.

For table of latitudes and departures, see book of
Boundaries of T.40 S., R.4 W.

For general description, see Subdivisions of
T.40 S., R.4 W.

Harvey L. Heist
U. S. DEPUTY SURVEYOR.

There being no notary public or other officer
authorized to administer oaths within reasonable
distance, at the beginning or ending of this survey,
in order to save time and expense, I administer the
preliminary and final oaths myself.

Harvey L. Heist
U. S. DEPUTY SURVEYOR

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Harvey D. Heist

United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of

the Eighth Standard Parallel South, through Rs. 2, 3 and 4 W. of the Salt Lake Base and Meridian, Utah. showing the respective capacities in which they acted:

Oley Sorenson William Walquist, Chairman.

Earl V. Woolley George Wilson, Chairman.

John Kitchen, Moundman.

Earl V. Woolley, Moundman.

John Kitchen, Axman.

James Potter, Axman.

Oley Sorenson, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Harvey D. Heist

United States Deputy Surveyor, in surveying all those parts or portions of the

Eighth Standard Parallel South, through Rs. 2, 3 and 4 W.

of the Salt

Lake Base and meridian, in the state of Utah, which are represented

in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor

General for Utah.

Oley Sorenson William Walquist, Chairman.

Earl V. Woolley George Wilson, Chairman.

John Kitchen, Moundman.

Earl V. Woolley, Moundman.

John Kitchen, Axman.

James Potter, Axman.

Oley Sorenson, Flagman.

Subscribed and sworn to before me this 31st

day of October, 1902, 189

Harvey D. Heist

U.S. Deputy Surveyor



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Harvey D. Heist, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Edward H. Anderson United States Surveyor General for Utah, bearing date of the 12th day of February, 1902, 1892, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the Eighth Standard Parallel South, through Rs. 2, 3 and 4 W.

of the Salt Lake Base and new circle N.O. meridian, in the state of Utah, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Utah, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Harvey D. Heist
United States Deputy Surveyor

Subscribed by said Harvey D. Heist, and sworn to before me }
this 26th day of March 1902, 1892

Edward H. Anderson
Surveyor-General for Utah



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Valhalla City, Utah, February 2, 1902, 1892

The foregoing field notes of the survey of the Eighth Standard Parallel South through Ranges 4 West of the Salt Lake Base and Meridian Utah

executed by Harvey D. Heist under his contract No. 251, dated February 19 1902, 1892, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward H. Anderson
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in Utah has been correctly copied from the original notes on file in this office.

United States Surveyor General

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FIELD NOTES

31.8.13.

OF THE SURVEY OF THE

E-M-E-R-Y V-A-L-L-E-Y G-U-I-D-E M-E-R-I-D-I-A-N

through

Township No. 40 South,

between

Ranges 3 and 4 West,

Of the Salt Lake Base and Meridian,

in the state of Utah,

AS SURVEYED BY

Harvey D. Heist, United States Deputy Surveyor,

Under his Contract No. 251, dated February 12, 1902.

Survey commenced October 31, 1902,

Survey completed November 2, 1902,

Book 6.00-001

NAMES AND DUTIES OF ASSISTANTS.

OLEY SORENSON	Chainman
Earl V. Woolley	Chainman
WILLIAM WALQUIST	Chainman
GEORGE WILSON	Chainman
JOHN KITCHEN	Moundman
Earl V. Woolley	Moundman
JOHN KITCHEN	Axman
JAMES POTTER	Axman
OLEY SORENSON	Flagman

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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, Oley Sorenson, Earl V. Woolley and William Walquist, George Wilson
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the
chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that
we will report the true distances to all notable objects, and the true lengths of all lines that we assist in
measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of
the Emery Valley Guide Meridian, through Township 40 S. bet. Rs. 3 and 4
W. of the Salt Lake Base and Meridian, Utah.

Oley Sorenson William Walquist, Chainman.
Earl V. Woolley George Wilson, Chainman.

Subscribed and sworn to before me this 31st.
day of October, 1902.



Harvey L. Heist
U.S. Deputy Surveyor

WE, John Kitchen and Earl V. Woolley
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment
of corners, according to the instructions given us, to the best of our skill and ability, in the survey of
the Emery Valley Guide Meridian, through Township 40 S. bet. Rs. 3 and 4
W. of the Salt Lake Base and Meridian, Utah.

John Kitchen, Moundman.
Earl V. Woolley, Moundman.

Subscribed and sworn to before me this 31st.
day of October, 1902.



Harvey L. Heist
U.S. DEPUTYS SURVEYOR

WE, John Kitchen and James Potter
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners
and other duties, according to instructions given us, to the best of our skill and ability, in the survey of
the Emery Valley Guide Meridian, through Township 40 S. bet. Rs. 3 and
4 W. of the Salt Lake Base and Meridian, Utah.

John Kitchen, Axman.
James Potter, Axman.

Subscribed and sworn to before me this 31st.
day of October, 1902.



Harvey L. Heist
U.S. DEPUTY SURVEYOR.

I, Oley Sorenson, do solemnly swear that I will well and truly
perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the
survey of the Emery Valley Guide Meridian, through Township 40 S. bet. Rs. 3
and 4 W. of the Salt Lake Base and Meridian, Utah.

Oley Sorenson, Flagman.

Subscribed and sworn to before me this 31st.
day of October, 1902.



Harvey L. Heist
U.S. Deputy Surveyor.

EMERY VALLEY GUIDE MERIDIAN

Survey commenced, October 31, 1902, and executed with a W.&J.E. Gurley, light mountain transit, No.--, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, May 26, 1902.

I examine the adjustments of the transit, and correct the level and collimation errors; then to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a meridian determined by observations on Polaris, I proceed as follows:

At the Standard Corner to Tp. 40 S., Rs. 3 and 4 W. in approximate Latitude $37^{\circ}17'18''$ N., Longitude $112^{\circ}13'23''$ W., heretofore, described. I set off $37^{\circ}17'$ N. on lat. arc; $14^{\circ}0'$ S. on decl. arc; and at 4 p.m., l.m.t., determine with the solar a true meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of my station.

October 31, 1902.

November 1 : At 4h.37m., a.m., l.m.t., I observe Polaris at western elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

At 7 a.m., I lay off the azimuth of Polaris, $1^{\circ}31'$ to the east, and mark the meridian thus determined, by cutting a small groove in the stone set last evening on which the meridian falls 0.3 ins. west of the mark

EMERY VALLEY GUIDE MERIDIAN, continued.

CHAINS

determined by the solar.

At 8 a.m., l.m.t., I set off $37^{\circ}17'N$. on lat. arc; $14^{\circ}13'S$. on decl. arc, and mark the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station, this mark falls 0.3 ins. west of the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations, defines positions for meridians, about $0'16''$ east and west of the meridian established by the Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8 a.m. is $N.15^{\circ}38'W$., the angle thus determined gives the mean mag. decl. $15^{\circ}38'$ east.

From the Standard cor. I run

North, bet, secs. 31 and 36.

Over sandy land, ascend through dense artemisia and scattering cedar and pinon timber.

27.00 Top of ridge, bears E. and W.

Descend.

Difference bet. measurement of 40.00 chs., by two sets of chainmen, is 4 lks., position of middle point

By 1st. set, 40.02 chs.

By 2nd. set, 39.98 chs., the mean of which is

40.00 Set a sandstone $15 \times 12 \times 4$ ins., 10 ins. in the ground, for

$\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$ on W. face, from which

A cedar 8 ins. diam., bears $N.3^{\circ}W$., 1.30 chs. dist., marked $\frac{1}{4}$ S. 36 B.T.

A cedar 12 ins. diam., bears $N.64^{\circ}E$., 1.53 chs. dist., marked $\frac{1}{4}$ S. 31 B.T.

44.50 Bottom of ravine, 100 ft. deep, course S.W.

Ascend.

76.00 Top of spur, projects S.W.

Descend.

Difference bet. measurement of 80.00 chs., by two sets

CHAINS

of chainmen, is 8 lks., position of middle point

By 1st. set, 80.04 chs.

By 2nd. set, 79.96 chs., the mean of which is

80.00 Bottom of hollow, 50 ft. deep, course S.W.

Set a sandstone 15x8x9 ins., 10 ins. in the ground, for cor. of secs. 25-30-31 and 30, marked with 1 notch on S. and 5 notches on N. edges, from which

A cedar 4 ins. diam., bears S. 6° E., 94 lks. dist., marked T. 40 S. R. 3 W. S. 31 B. T.

A cedar 4 ins. diam., bears N. 30° E., 76 lks. dist., marked T. 40 S. R. 3 W. S. 30 B. T.

No other trees within limits, and raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor.

Pits impracticable.

Land, rolling.

Soil, rocky 3rd. rate.

Timber, scattering cedar and pinon.

Dense undergrowth on 80.00 chs.

North, bet. secs. 25 and 30.

Ascend through dense artemisia and scattering cedar and pinon timber.

2.50 Top of spur ridge, projects S.W.

Descend.

11.45 Begin abrupt descent over rocky land.

23.00 Bottom of ravine, 200 ft. deep, course S.W.

Begin abrupt ascent.

26.70 Top of sandstone spur, projects S.W.

Begin abrupt descent.

30.00 Bottom of ravine, 100 ft. deep, course S.W.

Ascend.

33.50 Top of sandstone spur, projects W.

Begin abrupt descent.

37.20 Bottom of ravine, 250 ft. deep, course S.W.

Ascend.

Difference bet. measurement of two sets of chainmen, to foot of bluff, is 10 lks., position of middle point

EMERY VALLEY GUIDE MERIDIAN, continued.

CHAINS

By 1st.set, 38.05 chs.,

By 2nd.set, 37.95 chs., the mean of which is

38.00 Foot of sandstone, bluff, bears N.W. and S.E.

I cut a cross, X, on the smooth surface of the sandstone ledge, for witness cor. to $\frac{1}{4}$ sec. cor., marked W.C. $\frac{1}{4}$ on W. side of cross, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Begin abrupt ascent.

40.00 Point for $\frac{1}{4}$ sec. cor. falls on the steep face of the sandstone bluff and cannot be set.

46.00 Top of bluff, 800 ft. above sec. cor., bears N.W. and S.E.

Enter heavy cedar and pinon timber.

Begin gradual ascent.

57.50 Top of spur, projects W.

Descend.

Difference bet. measurement of 80.00 chs., by two sets of chainmen is 14 lks., position of middle point

By 1st.set, 80.07 chs.,

By 2nd.set, 79.93 chs., the mean of which is

80.00 Set a cobble stone 15x8x8 ins., 10 ins. in the ground,

for cor. of secs. 19-24-25 and 30., marked with 2 notches on S. and 4 notches on N. edges, from which

A pinon 24 ins. diam., bears N. 8° E., 1.70 chs. dist., marked T.40 S. R.3 W. S.19 B.T.

A cedar 4 ins. diam., bears S. 46° E., 2.28 chs. dist., marked T.40 S. R.3 W. S.30 B.T.

A cedar 3 ins. diam., bears S. 53° W., 1.48 chs. dist., marked T.40 S. R.4 W. 25 B.T.

A pinon 20 ins. diam., bears N. 14° W., 1.60 chs. dist., marked T.40 S. R.4 W. S.24 B.T.

Land mountainous.

Soil, rocky 3rd. and 4th. rate.

Heavy cedar and pinon on 34.00 chs.

Mountainous land or heavily timbered on 30.00 chs.

November 1: At this cor. I set off $14^{\circ}18'$ S. on decl.

-5-

EMERY VALLEY GUIDE MERIDIAN, continued.

CHAINS

arc; and at 11h.44m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37°19'N.

North, bet. secs. 19 and 24.

Descend through heavy cedar and pinon timber.

2.00 Hollow, 50 ft. deep, course S.W.

Ascend.

11.00 Leave heavy timber, bears E and W., enter dense artemisia and scattering cedar and pinon timber.

34.00 Top of ridge, bears N.W. and S.E.

Descend.

Difference bet. measurement of 40.00 chs., by two sets of chainmen is 8 lks., position of middle point

By 1st. set, 40.04 chs.

By 2nd. set, 39.96 chs., the mean of which is

40.00 Set a cedar post, 3 ft. long, 3 ins. sq., with marked stone 24 ins. in the ground., for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ S.24 on W. and 19 on E. faces, dig pits. 18x18x12 ins. N. and S. of post, 3 ft. dist., and raise a mound of earth, 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.

69.00 Head of ravine course N.E.

Enter heavy timber, bears N.E. and S.W.

Ascend.

Difference bet. measurement of 80.00 chs., by two sets of chainmen is 6 lks., position of middle point

By 1st. set, 80.03 chs.,

By 2nd. set, 79.97 chs., the mean of which is

80.00 Set a cedar post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground, for cor. of secs. 13-18-19 and 24, marked

T.40 S. S.18 on N.E.

R.3 W. S.19 on S.E.,

R.4 W. S.24 on S.W., and

S.13 on N.W. face, with 3 notches on N. and S. edges, from which

EMERY VALLEY GUIDE MERIDIAN, continued.

CHAINS:

A cedar 9 ins.diam., bears N.61°E., 45 lks.dist.,
marked T.40 S. R.3 W. S.18 B.T.

A cedar 6 ins.diam., bears S.69°E., 9 lks.dist.,
marked T.40 S. R.3 W. S.19 B.T.

A pinon 6 ins.diam., bears S.35°W., 10 lks.dist.,
marked T.40 S. R.4 W. S.24 B.T.

A cedar 12 ins.diam., bears N.81°W., 10 lks.dist.,
marked T.40 S. R.4 W. S.13 B.T.

Land rolling.

Soil, stony 3rd. rate.

Heavy timber on 22 chs.

Heavily timbered or dense undergrowth on 80.00 chs.

November 1, 1902.

November 2: At 8 a.m., l.m.t., I set off 37° 20' N. on
lat. arc; 14° 32' S. on decl. arc, and determine a true
meridian with the solar, at the cor. of secs. 13-18-19
and 24,

Thence I run

North, bet. secs. 13 and 18.

Ascend through heavy cedar and pinon timber.

22.00 Leave timber, bears N.W. and S.E.

Enter dense artemisia and oak brush.

Difference bet. measurement of 40.00 chs., by two sets
of chainmen, is 8 lks., position of middle point

By 1st. set, 40.04 chs.

By 2nd. set, 39.96 chs., the mean of which is

40.00 Set a cedar apost, 3 ft. long, 3 ins. sq., with marked

stone, 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked

$\frac{1}{4}$ S. 13 on W., and 18 on E. faces, digs pits, 18x18x12

ins., N. and S. of post, 3 ft. dist., and raise a mound of
earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

58.00 Enter heavy cedar and pinon timber, bears E. and W.

Difference bet. measurement of 80.00 chs., by two sets
of chainmen, is 10 lks., position of middle point

By 1st. set, 79.95 chs.

By 2nd. set, 80.05 chs., the mean of which is

EMERY VALLEY GUIDE MERIDIAN, continued.

CHAINS

80.00 Set a pinon post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground, for cor. of secs. 7-12-13 and 18, marked with 2 notches on N. and 4 notches on S. edges, and

T.40 S. S.7 on N.E.,
 R.3 W. S.18 on S.E.,
 R.4 W. S.13 on S.W., and
 S.12 on N.W. faces, from which

A cedar 8 ins. diam., bears N.72°30'E., 25 lks. dist., marked T.40 S. R.3 W. S.7 B.T.

A pinon 5 ins. diam., bears S.28°30'E., 11 lks. dist., marked T.40 S. R.3 W. S.18 B.T.

A pinon 4 ins. diam., bears S.42°W., 45 lks. dist., marked T.40 S. R.4 W. S.13 B.T.

A pinon 5 ins. diam., bears N.39°30'W., 14 lks. dist., marked T.40 S. R.4 W. S.12 B.T.

Land rolling.
 Soil, sandy 3rd. rate.
 Heavy timber on 44 chs.
 Heavily timbered or dense undergrowth on 80.00 chs.

North, bet. secs. 7 and 12.

Ascend through heavy cedar and pinon timber.

16.50 Top of ridge, bears S.W. and N.E.
 Descend over rocky and rolling land
 Difference bet. measurement of 40.00 chs., by two sets of chainmen, is 10 lks., position of middle point
 By 1st. set, 40.05 chs.
 By 2nd. set, 39.95 chs., the mean of which is

40.00 Set a sandstone 15x8x8 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which

A cedar 6 ins. diam., bears N.8° E., 14 lks. dist., marked $\frac{1}{4}$ S.7 B.T.

A cedar 5 ins. diam., bears N.36°W., 9 lks. dist., marked $\frac{1}{4}$ S.12 B.T.

Difference bet. measurement of 80.00 chs., by two sets

EMERY VALLEY GUIDE MERIDIAN, continued.

CHAINS

of chainmen, is 3 lks, position of middle point
 By 1st. set, 80.04 chs.
 By 2nd. set, 79.96 chs., the mean of which is

80.00 Set a sandstone 18x14x6 ins., 12 ins. in the ground, for
 cor. of secs. 1-6-7- and 12, marked with 5 notches on S.
 and 1 notch on N. edges, from which

A pinon 6 ins. diam., bears N. 18° E., 19 lks. dist., marked
 T. 40 S. R. 3 W. S. 6 B. T.

A pinon 4 ins. diam., bears S. 30° E., 24 lks. dist., marked
 T. 40 S. R. 3 W. S. 7 B. T.

A pinon 8 ins. diam., bears S. 42° W., 46 lks. dist., marked
 T. 40 S. R. 4 W. S. 12 B. T.

A cedar 9 ins. diam., bears N. 9° W., 28 lks. dist., marked
 T. 40 S. R. 4 W. S. 1 B. T.

Land rolling.
 Soil, rocky 3rd. rate.
 Heavy cedar and pinon timber on 80.00 chs.
 Heavily timbered on 80.00 chs.

November 2: At this cor. I set off 14° 37' S. on decl.
 arc, and at 11h. 44m., a.m., 1.m.t., observe the sun on
 the meridian, the resulting lat. is 37° 22' N.

North, bet. secs. 1 and 6.

Over rocky land, descend through heavy cedar and pinon timber.

9.00 Hollow, 50 ft. deep, course S.W.

Ascend.

16.00 Top of ridge, bears E. and W.

Descend abruptly over sandstone ledges, bearing E. and W.

29.00 Bottom of ravine, 300 ft. deep, course S.E.

Begin abrupt ascent over sandstone ledges, bearing N.W. and S.E.

33.00 Top of abrupt ascent, leave ledges, bear N.W. and S.E.

Begin gradual ascent.

38.00 Top of spur, projects W.

See page 166.

NOTE:

There being no notary public or other officer authorized to administer oaths within a reasonable distance at the beginning or ending of this survey, in order to save time and expense, I administer the preliminary and final oaths myself.

Samuel S. Hunt

U. S. DEPUTY SURVEYOR

EMERY VALLEY GUIDE MERIDIAN, con

(See p. 164.)

CHAINS

Descend.

Difference bet. measurement of 40.00 chs., by two sets of chainmen, is 14 lks., position of middle point

By 1st. set, 40.07 chs.

By 2nd. set, 39.93 chs., the mean of which is

40.00 Set a sandstone 15x8x5 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which

A pinon 8 ins. diam., bears S. 76° W., 31 lks. dist., marked $\frac{1}{4}$ S. 1 B. T.

A cedar 6 ins. diam., bears S. 17° E., 34 lks. dist., marked $\frac{1}{4}$ S. 6 B. T.

72.50 Leave timber, bears N. E. and S. W.

Enter dense artemisia.

Difference bet. measurement of 80.00 chs., by two sets of chainmen, is 10 lks., position of middle point

By 1st. set, 80.05 chs.

By 2nd. set, 79.95 chs., the mean of which is

80.00 Set a sandstone 15x12x6 ins., 10 ins. in the ground, for cor. for T. 39 and 40 S., Rs. 3 and 4 W., marked

39 S. on N. E.,

3 W. on S. E.

40 S. on S. W., and

4 W. on N. W. face; and with 6 notches on each edge, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor.

Pits impracticable.

Land rolling and mountainous.

Soil, rocky, 3rd. and 4th. rate.

Heavy cedar and pinon on 72.50 chs.

Heavily timbered or dense undergrowth on 80.00 chs.

November 2, 1902.

For general description, see book of subdivisions of T. 40 S. R. 4 W.

For table of latitude and departures, see Boundaries of T. 40 S. R. 4 W.

Harvey D. Geist

U. S. DEPUTY SURVEYOR.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Harvey D. Heist,

United States Deputy Surveyor, to assist in running, measuring, and

marking the lines and corners described in the foregoing field notes of the survey of

the Emery Valley Guide Meridian, through T. 40 S., bet. Rs. 3 and 4 W., of the Salt Lake Base and Meridian, Utah, showing the respective capacities in which they acted:

- Oley Sorenson Earl V. Woolley Chainman.
- William Walquist George Wilson Chainman.
- John Kitchen Moundman.
- Earl V. Woolley Moundman.
- John Kitchen Axman.
- James Potter Axman.
- Oley Sorenson Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Harvey D. Heist

United States Deputy Surveyor, in surveying all

those parts or portions of the Emery Valley Guide Meridian, through Township

No. 40 South, between Ranges No. 3 and 4 West.

of the Salt Lake

Base and meridian, in the state of Utah, which are represented

in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor

General for Utah,

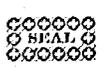
- Oley Sorenson William Walquist Chainman.
- Earl V. Woolley George Wilson Chainman.
- John Kitchen Moundman.
- Earl V. Woolley Moundman.
- John Kitchen Axman.
- James Potter Axman.
- Oley Sorenson Flagman.

Subscribed and sworn to before me this 2nd.

day of November, 1902.

Harvey D. Heist

U. S. DEPUTY SURVEYOR.



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Harvey D. Heist, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Edward H. Anderson United States Surveyor General for Utah, bearing date of the 12th day of February, 1902,, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the Emery Valley Guide Meridian, through T. 40 S., bet. Rs. 3 and 4 W.

of the Salt Lake Base and meridian, in the state of Utah, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Utah, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Harvey D. Heist
United States Deputy Surveyor.

Subscribed by said Harvey D. Heist, and sworn to before me }
this 26th day of March 1903, 189

Edward H. Anderson
Surveyor General for Utah



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, February 26, 1903 189

The foregoing field notes of the survey of The Emery Valley Guide Meridian through Township 4 North between Ranges 3 and 4 West of the Salt Lake Base and Meridian Salt Lake

executed by Harvey D. Heist under his contract No. 251, dated February 12, 1902 189, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward H. Anderson
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in , has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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8/2/02

4-679.

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P
BOOK A-297

M. J. B.

FIELD NOTES

OF THE SURVEY OF THE

W-E-S-T and N-O-R-T-H

R-O-U-N-D-A-R-I-E-S

of

Township No. 40 South, Range No. 4 West.

Of the Salt Lake Base and Meridian,

in the state of Utah.

AS SURVEYED BY

Harvey D. Meist, United States Deputy Surveyor,

Under his Contract No. 251, dated February 12, 1902, 189

Survey commenced November 3, 1902, 189

Survey completed November 5, 1902, 189

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M. Belmont - High 6-00-00 ✓
N- " " 6-55-30 ✓

NAMES AND DUTIES OF ASSISTANTS.

William Walquist Chairman

Earl V. Woolley "

Arthur N. Munger Moundman

Oley Sorenson "

Harry Payne Axman

Harry Payne Flagman

Supplementary affidavits see book of J. H. S. R. M.

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**Volume

R0297**

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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, _____ and _____
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of _____

_____, *Chainman.*
_____, *Chainman.*

Subscribed and sworn to before me this _____ }
day of _____, 189 _____ }



WE, _____ and _____
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of _____

_____, *Moundman.*
_____, *Moundman.*

Subscribed and sworn to before me this _____ }
day of _____, 189 _____ }



WE, _____ and _____
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of _____

_____, *Axman.*
_____, *Axman.*

Subscribed and sworn to before me this _____ }
day of _____, 189 _____ }



I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of _____

_____, *Flagman.*

Subscribed and sworn to before me this _____ }
day of _____, 189 _____ }



WEST BOUNDARY OF T.40 S., R.4 W.

CHAINS

Survey commenced, November, 3, 1902 and executed with the instrument described in book "P" of this survey. I know the instrument to be in adjustment, from recent observations made at the Standard cor. of Tp. 40 S., Rs. 3 and 4 W., October 31 and November 1, 1902, and recorded in book "P" of this survey.

At 8 a.m., l.m.t., I set off $37^{\circ}17'N.$ on lat. arc; $14^{\circ}51'$ S. on decl. arc, and determine a true meridian, with the solar, at the Standard cor. of Tp. 40 S., Rs. 4 and $4\frac{1}{2}$ W., heretofore described.

Thence I run

North, bet. secs. 31 and 33.

Descend through heavy cedar and pinon timber.

- 1.00 Bottom of ravine, 100 ft. deep, course N.W.
Ascend.
- 6.00 Top of spur, projects N.W.
Descend.
- 12.00 Bottom of ravine, 100 ft. deep, course W.
Ascend.
- 24.00 Top of clay spur, projects W.
Descend.
- 25.00 Hollow, 50 ft. deep, course W.
Ascend.
- 28.00 Top of clay spur, projects W.
Descend.
- 40.00 Set a cedar post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ S. 33 on W. and 31 on E. face, from which
A pinon 5 ins. diam., bears S. $23^{\circ}W.$, 17 lks. dist., marked $\frac{1}{4}$ S. 33 B.T.
A cedar 12 ins. diam., bears N. $83^{\circ}E.$, 11 lks. dist., marked $\frac{1}{4}$ S. 31 B.T.
After diligent search, no trace can be found of the old $\frac{1}{4}$ sec. cor., bet. secs. 33 and 34, T. 40 S., R. $4\frac{1}{2}$ W., described by the surveyor general.
- 41.00 Bottom of ravine, 100 ft. deep, course N.W.
Ascend.

WEST BOUNDARY OF T.40 S.,R.4 W.,continued.

CHAINS

46.00 Top of spur,projects N.W.

Descend.

51.00 Bottom of ravine,100 ft.deep,course W.

Ascend.

53.00 Top of clay spur.projects W.

Descend.

56.00 Bottom of hollow,75 ft.deep.course S W.

69.75 Top of spur,projects W.

Leave timber bears N.E.and S.W.

Enter dense artemisia.

Descend.

80.00 Set a cedar post 3ft.long,6 ins.sq.,with marked stone
24 ins.in the ground,for cor.of secs.28-30-31 and 33.
marked

T.40 S. S.30 on N.E.,

R.4 W. S.31 on S.E.,

R.4½ W. S.33 on S.W.,and

S.28 on N.W.faces,and with 5 notches on N.and 1 notch
S.edges,from which

A cedar 12 ins.diam.,bears N.51°E.,1.92 chs.dist.,
marked T.40 S. R.4 W. S.30 B.T.

A cedar 4 ins.diam.,bears S.49°E.,1.22 chs.dist.,
marked T.40 S. R.4 W. S.31 B.T.

No other trees within limits,dig pits,18x18x12 ins.
in each sec.5½ ft.dist.,

and raise a mound of earth,4 ft.base,2 ft.high,W.of
cor.

Land rolling and broken.

Soil,clay hills and sandy,3rd.rate.

Heavily timbered on 69.75 chs!

Heavily timbered or dense undergrowth on 80.00 chs.

No trace can be found of the cor.of secs.27-28-33 and
34,R.4½ W.,as described by the surveyor general.

WEST BOUNDARY OF T.40 S. R.4 W., continued.

CHAINS

North, bet. secs. 28 and 30.

Descend through dense artemisia.

3.10 Wash. 10x10 ft. course S.W.

4.75 Road to Skumpah, bears N.E. and S.W.

Ascend over rolling land.

17.50 Enter scattering cedar and pinon timber.

40.00 Set a sandstone 24x8x6 ins., 18 ins. in the ground, for

$\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which

A cedar 6 ins. diam., bears N. 84° W., 73 lks. dist.,
marked $\frac{1}{4}$ S. 28 B.T.

A cedar 8 ins. diam., bears S. 40° E., 49 lks. dist.,
marked $\frac{1}{4}$ S. 30 B.T.

42.00 Top of spur, projects S.E.

Descend.

43.50 Leave timber.

Enter broad hollow, course S.E.

Over level land.

61.00 Leave hollow.

Enter heavy cedar and pinon timber, bears N.W. and S.E.

Ascend.

79.00 Top of spur ridge, projects S.E.

Descend.

80.00 Set a sandstone 18x10x3 ins., 12 ins. in the ground, for

cor. of secs. 19-27-28 and 30, marked with 2 notches on
S. and 4 notches on N. edges, from which

A cedar 15 ins. diam., bears N. 13° E., 67 lks. dist.,
marked T.40 S. R.4 W. S.19 B.T.

A pinon 8 ins. diam., bears S. 52° E., 36 lks. dist.,
marked T.40 S. R.4 W. S.30 B.T.

A pinon 8 ins. diam., bears S. 79° W., 26 lks. dist.,
marked T.40 S. R.4 $\frac{1}{2}$ W. S.28 B.T.

A pinon 4 ins. diam., bears N. 27° W., 45 lks. dist.,
marked T.40 S. R.4 $\frac{1}{2}$ W. S.27 B.T.

Land rolling.

Soil, sandy loam 2nd. rate.

Heavy timber on 19.00 chs.

Dense undergrowth or heavily timbered on 80.00 chs.

WEST BOUNDARY OF T.40 S., R.4 W., continued.

CHAINS	North, bet. secs. 19 and 27.
	Descend through heavy cedar and pinon timber.
2.00	Head of hollow, course S.E. Ascend.
5.00	Top of spur ridge, projects S.E. Descend.
15.00	Head of ravine, course S.E. Ascend.
21.00	Top of spur, projects S.E. Descend.
25.50	Leave timber, bears N.W. and S.E. Enter broad hollow, course S.E. Over level land, through dense artémisia.
38.50	Leave hollow. Begin abrupt ascent over clay soil. Enter scattering cedar and pinon timber.
40.00	Set a sandstone 28x8x6 ins., 21 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which A cedar 18 ins. diam., bears N. 14° W., 32 lks. dist., marked $\frac{1}{4}$ S. 27 B.T. A pinon 4 ins. diam., bears S. 85° E., 73 lks. dist., marked $\frac{1}{4}$ S. 19 B.T.
61.00	Top of ridge, 400 ft. above sec. cor., bears N.E. and S.W. Descend.
72.00	Head of ravine, course N.W. Ascend.
80.00	Set a sandstone 15x12x5 ins., 10 ins. in the ground, for cor. of secs. 16-18-19 and 27, marked with 3 notches on N. and S. edges, from which A pinon 4 ins. diam., bears N. 36° E., 26 lks. dist., marked T.40 S. R.4 W. S.18 B.T. A cedar 8 ins. diam., bears S. 39° E., 23 lks. dist., marked T.40 S. R.4 W. S.19 B.T. A pinon 6 ins. diam., bears S. 51° W., 11 lks. dist., marked T.40 S. R.4 $\frac{1}{2}$ W. S.27 B.T. A cedar 6 ins. diam., bears N. 67° W., 21 lks. dist., marked T.40 S. R.4 $\frac{1}{2}$ W. S.16 B.T.

WEST BOUNDARY OF T.40 S. R.4 W., continued.

CHAINS

Land rolling and mountainous.

Soil, clay and sandy loam, 2nd. and 3rd. rate.

Heavy timber on 25.50 chs.

Mountainous land, heavily timbered or dense

undergrowth on 80.00 chs.

November 3: At this cor. I set off $14^{\circ}56'S$ on decl. arc, and at 11h.44m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}20'N$.

North, bet. secs. 16 and 18.

Ascend through dense artemisia and scattering cedar and pinon timber.

2.00 Top of ridge, bears N.W. and S.E.

Begin abrupt descent.

25.00 Wash, 1.00 ch. wide, 25 ft. deep, course N.E.

Bottom of broad ravine 250 ft. deep, course S.E.

Over level land in bottom of ravine.

37.00 Wash, 1.50 chs. wide, 30 ft. deep, course S.E.

The junction of the two washes is 5.00 chs. E.

Ascend. Enter heavy timber, bears E. and W.

40.00 Set a sandstone $20 \times 12 \times 8$ ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which

A pinon 5 ins. diam., bears $S. 75^{\circ}W.$, 71 lks. dist., marked $\frac{1}{4}$ S. 16 B.T.

A pinon 6 ins. diam., bears $S. 67^{\circ}E.$, 19 lks. dist., marked $\frac{1}{4}$ S. 18 B.T.

56.00 Top of ridge, bears N.E. and S.W.

Descend.

73.75 Hollow, 50 ft. deep, course N.E.

Ascend.

80.00 Top of spur, projects E.

Set a sandstone $12 \times 10 \times 8$ ins., 8 ins. in the ground, for cor. of secs. 7-9-16 and 18, marked with 4 notches on S. and 2 notches on N. edges, from which

A cedar 7 ins. diam., bears $N. 37^{\circ}E.$, 46 lks. dist., marked T.40 S. R.4 W. S.7 B.T.

WEST BOUNDARY OF T.40 S., R.4 W., continued.

CHAINS

A pinon 8 ins.diam., bears S.68°E., 41 lks.dist.,
marked T.40 S. R.4 W. S.18 B.T.

A pinon 12 ins.diam., bears S.56°W., 15 lks.dist., marked
T.40 S. R.4½ W. S.16 B.T.

A pinon 5 ins.diam., bears N.78°W., 55 lks.dist.,
marked T.40 S. R.4½ W. S.9 B.T.

Land rolling and mountainous.

Soil, clay and stony 3rd, rate,

Heavy cedar and pinon timber on 43.00 chs.

Mountainous land, dense undergrowth and heavily
timbered on 80.00 chs.

North, bet. secs. 7 and 9..

Descend through heavy cedar and pinon timber.

12.00 Bottom of ravine 100 ft. deep, course W.

Ascend.

24.00 Top of spur, projects S.W.

Descend.

32.00 Bottom of ravine, 100 ft. deep, course, S.W.

Ascend.

40.00 Set a sandstone 15x12x5 ins., 10 ins. in the ground, for
¼ sec. cor., marked ¼ on W. face, from which

A cedar 8 ins. in diam., bears N.44°E., 17 lks. dist.,
marked ¼ S.7 B.T.

A pinon 4 ins. diam., bears S.86°W., 5 lks. dist.,
marked ¼ S.9 B.T.

49.50 Top of spur, projects S.W.

Descend.

55.00 Head of ravine, course S.W.

Ascend.

58.00 Top of spur, projects S.W.

Descend.

62.00 Bottom of ravine, 100 ft. deep, course S.W.

Ascend.

74.00 Top of spur, projects W.

Descend.

WEST BOUNDARY OF T.40 S., R.4 W., continued.

CHAINS

80.00 Set a sandstone 15x10x10 ins., 10 ins. in the ground, for cor. of secs. 4-6-7 and 9, marked with 5 notches on S. and 1 notch on N. edges, from which

A pinon 5 ins. diam., bears N. 32° E., 9 lks. dist., marked T.40 S. R.4 W., S.6 B.T.

A pinon 4 ins. diam., bears S. 21° E., 22 lks. dist., marked T.40 S. R.4 W. S.7 B.T.

A pinon 4 ins. diam., bears S. 48° W., 16 lks. dist., marked T.40 S. R.4 $\frac{1}{2}$ W. S. 9 B.T.

A cedar 10 ins. diam., bears N. 81° W., 9 lks. dist., marked T.40 S. R.4 $\frac{1}{2}$ W. S. 4 B.T.

Land broken.

Soil, stony 3rd. rate.

Heavy timber on 80.00 chs.

Heavily timbered on 80.00 chs.

North, bet. secs. 4 and 6.

Descend through heavy cedar and pinon timber.

5.00 Begin abrupt descent.

12.00 Bottom of ravine, 150 ft. deep, course W.
Begin abrupt ascent.

17.00 Top of spur, projects W.
Begin abrupt descent.

31.50 Bottom of ravine, 150 ft. deep, course W.
Ascend.

39.00 Top of spur, projects W.
Descend.

40.00 Set a limestone 14x14x6 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which

A cedar 12 ins. diam., bears N. 49° W., 14 lks. dist., marked $\frac{1}{2}$ S. 4 B.T.

A pinon 6 ins. diam., bears N. 32° E., 33 lks. dist., marked $\frac{1}{4}$ S. 6 B.T.

41.00 Bottom of ravine 100 ft. deep, course S.W.
Ascend.

44.30 Top of spur, projects S.W.

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WEST BOUNDARY OF T.40 S.,R.4 W.,concluded.

CHAINS

Descend.

47.75

Bottom of ravine,150 ft.deep,course S.W.

Ascend.

57.00

Top of spur,projects S.W.

Descend.

65.00

Bottom of ravine,100 ft.deep,course S.W.

Ascend.

72.00

Top of spur,projects S.W.

Descend.

74.50

Leave timber,bears N.E.and S.W.

Enter dense artemisia and oak brush.

80.00

Set a porphyry stone 18x10x10 ins.,12 ins.in the ground,

for cor.of Tps.39 and 40 S.,Rs.4 and 4½ W.,marked

39 S.on N.E.,

4 W.on S.E.,

40 S.on S.W.,and

4½ W.on N.W.face,with 6 notches on each edge.

from which

A cedar 12 ins.diam.,bears S.27°E.,1.67 chs.dist.,

marked T.40 S. R.4 W. S.6 B.T.

A cedar 8 ins.diam.,bears S.61°W.,2.53 chs.dist.,

marked T.40 S. R.4½ W. S.4 B.T.

No other trees within limits,and raise a mound of

stone 2 ft.base,1½ ft.high,S.of cor.

Pits impracticable.

Land mountainous.

Soil,stonny 3rd.rate.

Heavy cedar and pinon timber on 74.50 chs.

Mountainous land on 80.00 chs.

Note:

The U.S.Geological Survey Triangulation Point, is described by the surveyor general,as being on the S.edge of the Paunsaugunt Plateau,on Pink Cliffs.

From this cor.Pink Cliffs are N.W.about 1½ mile dist. bear N.E.and S.W.about 4 miles in each direction.

I make enquires amongst the settlers about the triangulation crib,and carefully examine the edge of

WEST BOUNDARY OF T.40 S.,R.4 W.,concluded.

CHAINS

Pink Cliffs,with my telescope,and can find no trace of it.

Therefore I cannot connect with it.

November 3,1902.

NORTH BOUNDARY OF T.40 S.,R.4 W.

November 4: At 8 a.m.,l.m.t.,I set off $37^{\circ} 22' 31''$ W. on lat.arc; $15^{\circ} 09'$ S.on decl.arc,and determine a true meridian with the solar,at the cor.of Tps.39 and 40 S. 3 and 4 W.,heretofore described.

Thence I run

West,on a random line,along the N.Bdy.of Tp.40 S., R.4 W.,setting temp. $\frac{1}{4}$ sec.and sec.cors.at intervals of 40.00 chs.;and at 535.33 chs.,intersect W.Bdy.of Tp.,29 lks.S.of the cor.of Tps.39 and 40 S.,Rs.4 and $4\frac{1}{2}$ W.,heretofore described.

The falling answers to a correction of $0^{\circ} 2'$,or 5 lks. N.per mile,counting from the N.E.cor.of the Tp.

Thence I run

S. $89^{\circ} 58' E.$,bet.secs.6 and 31,marking and blazing true line.

Ascend through dense artemisia and scattering cedar and pinon timber.

5.75 Top of spur,projects S.W.

Descend.Enter heavy cedar and pinon timber,bears N.and S.

11.50 Bottom of ravine,100 ft.deep,course S.W.

Ascend.

52.00 Top of ridge,bears N.W.and S.E.

Descend.

95.33 Set a porphyry stone 15x12x8 ins.,10 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on N.face,from which A cedar 15 ins.diam.,bears N. $82^{\circ} W.$,1.09 chs.dist., marked $\frac{1}{4}$ S.31 B.T.

A cedar 6 ins.diam.,bears S. $81^{\circ} W.$,78 lks.dist., marked $\frac{1}{4}$ S.6 B.T.

NORTH BOUNDARY OF T.40 S., R.4 W., continued.

CHAINS

102.00 Bottom of ravine, 100 ft. deep, course S.E.
Ascend.

106.00 Top of ridge, bears N.W. and S.E.
Descend.

123.00 Begin abrupt descent.
Leave timber, bears N.W. and S.E.
Enter dense artemisia and scattering oak brush.

134.00 Wash, 10x10 ft., in bottom of ravine, 200 ft. deep,
course S.E.
Ascend.

134.75 Road, from Skumpah to Meadows, bears N.W. and S.E.

135.33 Set a sandstone 12x12x8 ins., 8 ins. in the ground, for
cor. of secs. 5-6-31 and 32, marked with 1 notch on W.
and 5 notches on E. edges, and raise a mound of stone,
2 ft. base, 1½ ft. high, W. of cor.

Pits impracticable.

Land rolling and broken.

Soil, stony 3rd. rate.

Heavy cedar and pinon timber on 117.25 chs.

Heavily timbered or dense undergrowth on 135.33 chs.

November 4, 1902.

November 5: At 8 a.m., 1 m. t., I set off 37°22'30" N. on
lat. arc; 15°29' S. on decl. arc, and determine a true
meridian with the solar at the cor. of secs. 5-6-31 and
32.

Thence I run

S. 89°58' E., bet. secs. 5 and 32.

Ascend through dense artemisia and scattering oak
brush.

5.00 Enter heavy cedar and pinon timber, bears N.W. and S.E.

22.50 Top of spur, projects S.
Descend.

38.00 Bottom of ravine, 200 ft. deep, course S.W.
Ascend.

NORTH BOUNDARY OF T.40 S., R.4 W., continued.

CHAINS

- 40.00 Set a sandstone 12x10x8 ins., 8 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which
 A cedar 8 ins. diam., bears North, 19 lks., dist., marked $\frac{1}{4}$ S.32 B.T.
 A pinon 6 ins. diam., bears S.25°E., 16 lks. dist., marked $\frac{1}{4}$ S.5 B.T.
- 46.50 Top of ridge, bears N. and S.
 Descend.
- 70.00 Bottom of hollow, 50 ft. deep, course S.E.
 Ascend.
- 74.00 Top of spur, projects S.E.
 Descend.
- 80.00 Set a sandstone 15x12x5 ins., 10 ins. in the ground, for cor. of secs. 4-5-32 and 33, marked with 2 notches on W. and 4 notches on E. edges, from which
 A cedar 8 ins. diam., bears N.79°E., 1.05 chs. dist., marked T.39 S. R.4 W. S.33 B.T.
 A cedar 4 ins. diam., bears S.1°30'E., 39 lks. dist., marked T.40 S. R.4 W. S.4 B.T.
 A pinon 3 ins. diam., bears S.20°W., 65 lks. dist., marked T.40 S. R.4 W. S.5 B.T.
 A cedar 4 ins. diam., bears N.42°W., 66 lks. dist., marked T.39 S. R.4 W. S.32 B.T.
 Land rolling.
 Soil, stony 3rd. rate.
 Heavy cedar and pinon on 75.00 chs.
 Heavily timbered or dense undergrowth on 80.00 chs.
-
- S.89°58'E., bet. secs. 4 and 33.
 Descend through heavy cedar and pinon timber.
- 27.00 Bottom of ravine, 150 ft. deep, course S.E.
 Ascend.
- 40.00 Set a sandstone 18x16x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which
 A pinon 4 ins. diam., bears N.18°W., 33 lks. dist.,

NORTH BOUNDARY OF T.40 S.,R.4 W.,continued.

CHAINS

marked $\frac{1}{4}$ S.33 B.T.

A cedar 4 ins.diam.,bears S.76°E.,43 lks.dist.,
marked $\frac{1}{4}$ S.4 B.T.

42.00 Top of ridge,bears N.W.and S.E.

Descend.

44.00 Leave timber,bears N.W.and S.E.

Enter dense artemisia and scattering oak brush.

59.00 Foot of descent,bears N.W.and S.E.

Over level land.

69.00 Wash,5x5 ft.,course S.E.

80.00 Set a sandstone 24x8x6 ins.,18 ins.in the ground,for
cor.of secs.3-4-33 and 34,marked with 3 notches on E.
and W.edges,and raise a mound of stone 2ft.base, $1\frac{1}{2}$
ft.high,W.of cor.

Pits impracticable.

Land rolling.

Soil,rocky 3rd.rate.

Heavy cedar and pinon timber on 44.00 chs.

Heavily timbered or dense undergrowth on 80.00 chs.

November 5: At this cor.I set off 15°32'S.on decl.
arc,and at 11h.44m.,a.m.,1.m.t.,observe the sun on
the meridian,the resulting lat.is 37°22'30".N.

S.89°58'E.,bet.secs.3 and 34.

Over level land,through dense artemisia and scatter-
ing oak brush.

6.75 Wash,10 ft.wide,8 ft.deep,course S.E.

10.80 Road,bears N.W.and S.E.

18.50 Begin abrupt ascent.

Enter heavy cedar and pinon timber,bears N.W.and S.E.

40.00 Set a sandstone 12x10x8 ins.,12 ins.in the ground,
for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on N.face,from which

A cedar 10 ins.diam.,bears North,18 lks,dist.,marked
 $\frac{1}{4}$ S.34 B.T.

A pinon 4 ins.diam.,bears S.72°W.,15 lks.dist.,marked
 $\frac{1}{4}$ S.3 B.T.

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NORTH BOUNDARY OF T.40 S., R.4 W., continued.

CHAINS

- 46.00 Top of ridge, bears N.W. and S.E.
Descend.
- 70.50 Bottom of ravine, 100 ft. deep, course S.E.
Ascend.
- 80.00 Set a sandstone 15x12x 6 ins., 10 ins. in the ground, for cor. of secs. 2-3-34 and 35, marked with 2 notches on E. and 4 notches on W. edges, from which
A pinon 6 ins. diam., bears N. 61° E., 6 lks. dist., marked T.39 S. R.4 W. S.35 B.T.
A pinon 7 ins. diam., bears S. 19° E., 18 lks. dist., marked T.40 S. R.4 W. S.2 B.T.
A cedar 7 ins. diam., bears S. 8° W., 48 lks. dist., marked T.40 S. R.4 W. S.3 B.T.
A pinon 5 ins. diam., bears N. 25° W., 9 lks. dist., marked T.39 S. R.4 W. S.34 B.T.
Land rolling.
Soil, stony 3rd. rate.
Heavy cedar and pinon timber on 61.50 chs.
Heavily timbered or dense undergrowth on 80.00 chs.
-
- S. 89° 58' E., bet. secs. 2 and 35.
- Ascend through heavy cedar and pinon timber.
- 3.00 Top of ridge, bears N. and S.
Descend.
- 16.00 Bottom of ravine, 100 ft. deep, course N.E.
Ascend.
- 32.00 Top of spur, projects N.E.
Descend.
- 39.50 Bottom of ravine, 100 ft. deep, course N.E.
Ascend abruptly over rocky land.
- Leave timber, bears N. and S.
- 40.00 Set a sandstone 18x10x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
Pits impracticable.

NORTH BOUNDARY OF T.40 S., R.4 W., continued.

CHAINS

- 45.50 Top of spur, projects N.
Enter heavy timber, bears N. and S.
Descend over broken land.
- 70.00 Leave timber, bears N.W. and S.E.
Enter dense artemisia.
- 80.00 Set a sandstone 18x18x3 ins., 12 ins. in the ground,
for cor. of secs. 1-3-35 and 36, marked with 5 notches
on W. and 1 notch on E. edges, dig pits, 18x18x12 ins.,
in each sec., $5\frac{1}{2}$ ft. dist., and raise a mound of earth,
4 ft. base, 2 ft. high, W. of cor.
Land rolling and broken.
Soil, stony 3rd. rate.
Heavy cedar and pinon timber on 64.00 chs.
Heavily timbered or dense undergrowth on 80.00 chs.
-
- S. $89^{\circ} 58' E.$, bet. secs. 1 and 36.
- 10.40 Descend through dense artemisia,
Wash, 20 ft. wide, 10 ft. deep, course S.E.
Ascend.
- 24.50 Top of spur, projects S.
Descend.
- 26.50 Wash, 15x15 ft. course S.
- 40.00 Set a cedar post, 3 ft. long, 4 ins. sq., with marked
stone, 24 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{4}$
S. 30 on N., and 1 on S. face, dig pits 18x18x12 ins. E.
and W. of post., 3 ft. dist., and raise a mound of earth,
 $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
- 59.65 Wash, 10x10 ft., course S.
Ascend.
- 67.00 Road, bears N.E. and S.W.
- 80.00 Intersect the cor. of Tps. 39 and 40 S., Rs. 3 and 4 W.,
heretofore described.
Land, rolling.
Soil, sandy loam, 2nd. rate.
No timber.

NORTH BOUNDARY OF T.40 S.,R.4 W.,concluded.

Dense undergrowth, on 80.00 chs.

November 5, 1902.

BOUNDARIES OF T.40 S.,R.4 W.

Latitudes, departures and closing errors.

Line Designated	True Bearing	Distance	Latitudes		Departures	
			N.	S.	E.	W.
n. Stan. Par. S.	West	535.83				535.83
st Bdy. T.40 S.						
R.4 W.	North	480.00	480.00			
rth Bdy. "	S. 89°58'E.	535.33		.31	535.33	
ery Valley	South	480.00		480.00		
uide Meridian						
vergence					.55	
Totals			480.00	480.31	535.88	535.83
Error in lat. and dep.				480.00	535.83	
				.31	.05	

For general description, see subdivisions of

T.40 S.,R.4 W.

Harvey M. Geist
 U.S. DEPUTY SURVEYOR.

There being no notary public or other officer authorized to administer oaths within a reasonable distance at the beginning or ending of this survey, in order to save time and expense, I administer the preliminary and final oaths myself.

Harvey M. Geist
 U.S. DEPUTY SURVEYOR

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PAGE

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Harvey D. Heist

....., United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the N. & W.

Hdys. T. 40 S., Rs. 2 & 4 W., E. Bdy. T. 40 S., R. 2 W., & E. Bdy. T. 41 S., R. 2 W. of the Salt Lake Base and Meridian, Utah, showing the respective capacities in which they acted:

- William Walquist Chainman.
- Earl V. Woolley Chainman.
- Arthur N. Mungler Moundman.
- Oley Sorenson Moundman.
- Harry Payne Arman.
- Arman.
- Harry Payne Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Harvey D. Heist

....., United States Deputy Surveyor, in surveying all those parts or portions of the N. and W. Hdys. of T. 40 S., Rs. 2 and 4 W., E. Bdy. T. 40 S., R. 2 W., and the E. Bdy. T. 41 S., R. 2 W.

..... of the Salt Lake Base and meridian in the state of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah.

- William Walquist Chainman.
- Earl V. Woolley Chainman.
- Arthur N. Mungler Moundman.
- Oley Sorenson Moundman.
- Harry Payne Arman.
- Arman.
- Harry Payne Flagman.

Subscribed and sworn to before me this 5th day of November, 1902, 189

Harvey D. Heist
.....
U.S. Deputy Surveyor.



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Harvey D. Heist, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Edward H. Anderson, United States Surveyor General for Utah, bearing date of the 12th day of February, 1902, 1892, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the N. and W. Bdy. of T. 40 S., R. 2 W. and 4 W., E. Bdy. of T. 40 S., R. 2 W., and E. Bdy. of T. 41 S., R. 2 W.

of the Salt Lake Base and in book of N. & C. meridian, in the state of Utah, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Utah, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Harvey D. Heist
United States Deputy Surveyor

Subscribed by said Harvey D. Heist, and sworn to before me }
this 26th day of March 1903, 1893

Edward H. Anderson
Surveyor-General for Utah



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Call Lake City, Utah, February 26, 1902, 1892
The foregoing field notes of the survey of the West & North Boundary of Township 40 South Range 4 West of the Salt Lake Base Meridian, Utah

executed by Harvey D. Heist
under his contract No. 251, dated February 12, 1902, 1892, having been critically examined, and the necessary corrections and explanations made, the said field notes, and surveys they describe, are hereby approved.

Edward H. Anderson
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office

United States Surveyor General

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4-679.

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MAR 26 1903

R.

BOOK A-297

W.H.B.

*W.C.M.C.
a.c.*

FIELD NOTES

OF THE SURVEY OF THE

S-U-B-D-I-V-I-S-I-O-N L-I-N-E-S

of

Township No. 40 South, Range No. 4 West.

Of the Salt Lake Base and Meridian,

in the state of Utah.

AS SURVEYED BY

Harvey D. Heist, United States Deputy Surveyor,

Under his Contract No. 251, dated February 12, 1902., 189

Survey commenced November 6, 1902., 189

Survey completed November 19, 1902., 189

High 63-38-64 ✓

*EX-2
S. 20*

J. J. B.

NAMES AND DUTIES OF ASSISTANTS.

William Walquist

Chainman

George Wilson

"

John Kitchen

Moundman

Earl V. Woolley

"

James Potter

Axman

Oley Sorenson

Flagman

For preliminary affidavits see book C, p 405 (2)

BOOK A-297

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PRELIMINARY OATHS OF ASSISTANTS.

WE, _____ and _____ do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of _____

_____, *Chainman.*

_____, *Chainman.*

Subscribed and sworn to before me this _____ }
day of _____, 189 _____ }



WE, _____ and _____ do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of _____

_____, *Moundman.*

_____, *Moundman.*

Subscribed and sworn to before me this _____ }
day of _____, 189 _____ }



WE, _____ and _____ do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of _____

_____, *Axman.*

_____, *Axman.*

Subscribed and sworn to before me this _____ }
day of _____, 189 _____ }



I, _____, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of _____

_____, *Flagman.*

Subscribed and sworn to before me this _____ }
day of _____, 189 _____ }



SUBDIVISIONS OF T.40 S., R.4 W.

Survey commenced, November 6, 1902, and executed with a W. & L. E. Gurley, light mountain transit, No. -, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, May 26, 1902.

I examine the adjustments of the transit, and correct the level and collimation errors; then to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a meridian determined by observations on Polaris, I proceed as follows:

At the Stan. Cor. to secs. 35 and 36, on 8th. Stan. Par. South, in approximate latitude $37^{\circ}17'18''$ N., long. $112^{\circ}14'28''$ W. heretofore described.

I set off $37^{\circ}17'$ N. on lat. arc; $15^{\circ}53'$ S. on decl. arc; and at 4 p.m., l.m.t., determine with the solar a true meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of my station.

November 6, 1902.

November 7 : At 4h. 13m., a.m., l.m.t. I observe Polaris at western elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

At 7 a.m., I lay off the azimuth of Polaris, $1^{\circ}31'$ to the east, and mark the meridian thus determined, by cutting a small groove in the stone set last evening on which the meridian falls 0.3 ins. west of the mark

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

determined by the solar.

At 8 a.m., l.m.t., I set off $37^{\circ}17'N.$ on lat. arc; $16^{\circ}05'$ S. on decl. arc, and mark the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station, this mark falls 0.3 ins. west of the meridian established by the Polaris observation. The solar apparatus by p.m. and a.m. observations, defines positions for meridians, about $0'16''$ east and west of the meridian established by the Polaris observation; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8 a.m. is $N.15^{\circ}38'W.$, the angle thus determined gives the mean mag. decl. $15^{\circ}38'$ east.

Thence I run

$N.0^{\circ}01'W.$, bet. secs. 35 and 36.

Over rolling land, descend through dense artemisia.

40.00 Set a cedar post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ S. 35 on W. and 36 on E. face, dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

48.50 Bottom of ravine, 100 ft. deep, course N.W.

Ascend.

61.00 Top of ridge, bears N.W. and S.E.

Enter scattering cedar and pinon timber.

Descend.

70.00 Leave timber.

75.00 Deer Spring Wash, 75 lks. wide, 20 ft. deep, course S.E., with road, bears N.W. and S.E., in bottom of canon, course S.E.

Ascend.

80.00 Set a sandstone 24x10x5 ins., 18 ins. in the ground, for cor. of secs. 25-26-35 and 36, marked with 1 notch on S. and E. edges, and raise a mound of stone 2 ft. base,

SUBDIVISIONS OF T.40 S.,R.4 W.,continued.

CHAINS

1½ ft.high,W.of cor.

Pits impracticable.

Land rolling.

Soil,sandy 3rd.rate.

Scattering cedar and pinon on 9.00 chs.

Dense undergrowth on 80.00 chs.

East,on a random line,bet.secs.25 and 36.

40.00 Set temp.¼ sec.cor.

80.04 Intersect Emery Valley Guide Meridian,3 lks.S.of the cor.of secs.25-30-31 and 36,heretofore described.

Thence I run

S.89° 59'W.,on a true line,

Bet.secs.25 and 36.

Over rocky land,ascend through dense artemisia and scattering cedar and pinon timber.

3.50 Top of spur ridge,projects S.W.

Descend.

12.00 Begin abrupt descent.

16.50 Bottom of ravine,150 ft.deep,course S.

Ascend.

24.50 Top of spur,projects S.

Descend.

31.00 Bottom of ravine,150 ft.deep,course S.

Ascend.

40.02 Top of sandstone spur,projects S.

Point for cor.falls on the smooth surface of a sandstone ledge,I cut a cross,X,at exact point for ¼ sec.cor.,marked ¼ on N.side of cross,and raise a mound of stone,2 ft.base,1½ ft.high,N.of cor.

Pits impracticable.

Descend.

63.00 Bottom of ravine,150 ft.deep,course S.

Ascend.

69.00 Top of spur,projects S.

Descend.

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SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS	
75.00	Hollow, 50 ft. deep, course S. Ascend.
77.25	Top of spur, projects S.W. Descend.
80.04	The cor. of secs. 25-26-35 and 36. Land mountainous. Soil, stony 3rd. rate. Timber, scattering cedar and pinon. Mountainous land on 80.04 chs.
<hr/>	
	N.0° 01'W., bet. secs. 25 and 26.
	Ascend.
5.50	Begin abrupt ascent.
11.00	Top of spur, projects W. Enter scattering cedar and pinon timber. Descend.
17.00	Bottom of ravine, 100 ft. deep, course S.W. Ascend.
40.00	Set a sandstone 18x12x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which A pinon 20 ins. diam., bears S.63°30'W., 1.10 chs. dist., marked $\frac{1}{4}$ S.26 B.T. A cedar 4 ins. diam., bears S.59°30'E., 68 lks. dist., marked $\frac{1}{4}$ S.25 B.T.
40.75	Top of spur, projects W. Descend.
45.00	Bottom of ravine, 150 ft. deep, course S.W. Ascend.
51.00	Top of spur, projects S.W. Descend.
60.00	Bottom of ravine, 150 ft. deep, course S.W. Ascend.
70.00	Top of spur, projects S.W. Descend.
78.50	Bottom of ravine, 150 ft. deep, course S.W. Ascend.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS	
80.00	<p>Set a sandstone 24x24x8 ins., 18 ins. in the ground, for cor. of secs. 23-24-25 and 26, marked with 2 notches on S. and 1 notch on E. edges, from which</p> <p>A cedar 10 ins. diam., bears N. 5° E., 50 lks. dist., marked T.40 S. R.4 W. S.24 B.T.</p> <p>A cedar 5 ins. diam., bears S. 9° E., 98 lks. dist., marked T.40 S. R.4 W. S.25 B.T.</p> <p>A cedar 8 ins. diam., bears S. 36° W., 1.91 chs. dist., marked T.40 S. R.4 W. S.26 B.T.</p> <p>A cedar 20 ins. diam., bears N. 63° W., 1.56 chs. dist., marked T.40 S. R.4 W. S.23 B.T.</p> <p>Land mountainous.</p> <p>Soil, rocky 3rd. rate.</p> <p>Timber, scattering cedar and pinon.</p> <p>Mountainous land on 80.00 chs.</p> <p>November 7: At this cor. I set off 16° 10' S. on decl. arc; and at 11h. 44m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37° 19' N.</p>
40.00	<p>N. 89° 59' E., on a random line, bet. secs. 24 and 25.</p> <p>Set temp. $\frac{1}{4}$ sec. cor.</p>
80.10	<p>Intersect Emery Valley Guide Meridian, 3 lks. S. of the cor. of secs. 19-24-25 and 30, heretofore described.</p> <p>Thence I run</p> <p style="padding-left: 40px;">S. 89° 58' W., on a true line,</p> <p style="padding-left: 40px;">Ret. secs. 24 and 25.</p>
1.75	<p>Descend through heavy cedar and pinon timber.</p> <p>Hollow, 50 ft. deep, course S.W.</p> <p>Ascend.</p>
11.00	<p>Top of ridge, bears N.E. and S.W.</p> <p>Descend.</p>
15.50	<p>Head of ravine, course N.</p> <p>Ascend.</p>
23.00	<p>Top of ridge, bears N.W. and S.E.</p> <p>Descend.</p>
30.00	<p>Head of ravine, course S.</p>

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS	
	Ascend.
39.50	Top of spur, projects S.W. Descend.
40.05	Set a sandstone 12x12x6 ins., 8 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which A cedar 10 ins. diam., bears N.31°E., 42 lks. dist., marked $\frac{1}{4}$ S.24 B.T. A cedar 14 ins. diam., bears S.46°E., 32 lks. dist., marked $\frac{1}{4}$ S.25 B.T.
57.00	Begin abrupt descent over sandstone ledges, bearing N.E. and S.W. Leave timber bears N.E. and S.W.
76.00	Bottom of ravine, 600 ft. below top of ledges. course SW. Leave ledges. Ascend over rocky land.
80.10	The cor. of secs. 23-24-25 and 26. Land mountainous. Soil, rocky 3rd and 4th. rate. Heavy cedar and pinon timber on 57.00 chs. Mountainous land on 80.10 chs.
<hr/> <p>N.0° 01'W., bet. secs. 23 and 24.</p>	
	Ascend over rocky land through scattering cedar and pinon timber.
4.65	Top of spur, projects S.W. Descend.
25.00	Bottom of ravine, 150 ft. deep, course N.W. Ascend.
28.00	Top of spur, projects W. Descend.
32.00	Bottom of ravine, 150 ft. deep, course S.W. Ascend.
40.00	Top of spur, projects S.W. Set a sandstone 18x8x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Descend.
47.00	Bottom of ravine, 100 ft. deep, course S.W. Ascend.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

58.50 Top of spur, projects S.W.
Descend.

65.00 Hollow, 50 ft. deep, course S.W.
Ascend.

73.00 Begin abrupt ascent over sandstone ledges, bearing E.
and W.

75.00 Top of rocky spur, projects W., 800 ft. above sec. cor.
Descend.

80.00 Set a sandstone 24x12x6 ins., 18 ins. in the ground, for
cor. of secs. 13-14-23 and 24, marked with 3 notches
on S. and 1 notch on E. edges, from which

A pinion 3 ins. diam., bears N. 25° E., 1.91 chs. dist.,
marked T.40 S. R.4 W. S.13 B.T.

An oak 3 ins. diam., bears S. 41° E., 15 lks. dist.,
marked T.40 S. R.4 W. S.24 B.T.

A cedar 12 ins. diam., bears S. 73° W., 1.37 chs. dist.,
marked T.40 S. R.4 W. 23 B.T.

A cedar 14 ins. diam., bears N. 62° W., 76 lks. dist.,
marked T.40 S. R.4 W. S.14 B.T.

Land mountainous.

Soil, rocky 3rd. and 4th. rate,

Timber, scattering cedar and pinon.

Mountainous land on 80.00 chs.

November 7, 1902.

November 8: At 8 a.m., 1.m.t., I set off 37° 20' N. on
lat. arc; 16° 23' S. on decl. arc; and determine a true
meridian, with the solar, at the cor. of secs. 13-14-23
and 24.

Thence I run

N. 89° 53' E., on a random line, bet. secs. 13 and 24.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.08 Intersect Emery Valley Guide Meridian, 5 lks. N. of the
cor. of secs. 13-18-19 and 24, heretofore described.

Thence I run

West, on a true line,

SUBDIVISIONS OF T.40 S.,R.4 W.,continued.

CHAINS

Bet.secs.13 and 24.

Ascend through heavy cedar and pinon timber.

5.00 Top of ridge,bears N.and S.

Descend.

35.75 Bottom of ravine,100 ft.deep,course N.W.

Ascend.

38.00 Top of spur,projects N.W.

Descend.

40.04 Hollow,50 ft.deep,course N.

A cedar 15 ins.diam.,for $\frac{1}{4}$ sec.cor.,I mark $\frac{1}{4}$ S.13 on N.side,and 24 on S.side,from which

A cedar 8 ins.diam.,bears N.7°E.,15 lks.dist.,marked $\frac{1}{4}$ S.13 B.T.

A cedar 10 ins.diam.,bears S.6°W.,20 lks.dist.,marked $\frac{1}{4}$ S.24 B.T.

Ascend.

43.00 Top of spur,projects N.

Descend.

74.00 Begin abrupt descent over sandstone ledges,bearing N.and S.

Leave heavy timber,bears N.and S.

Enter scattering timber.

80.08 The cor.of secs.13-14-23 and 24.

Land mountainous.

Soil,rocky 3rd.and 4th.rate.

Heavy cedar and pinon timber on 74.00 chs.

Mountainous land or heavily timbered on 80.08 chs.

N.0° 01'W.,bet.secs.13 and 14.

Descend over broken sandstone ledges,through scattering cedar and pinon timber.

40.00 Set a sandstone 28x10x8 ins.,21 ins.in the ground, for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on W.face,from which

A pinon 12 ins.diam.,bears N.32°W.,1.85 chs.dist., marked $\frac{1}{4}$ S.14 B.T.

A pinon 10 ins.diam.,bears S.46°E.,1.00 ch.dist.,

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SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS	
	marked $\frac{1}{4}$ S.13 B.T.
47.00	Bottom of ravine, 150 ft. deep, course W. Leave ledges. Ascend.
53.00	Top of spur, projects W. Descend.
57.00	Hollow, 50 ft. deep, course W. Ascend.
60.00	Top of spur, projects W. Descend, over rolling land, through dense artemisia.
80.00	Set a sandstone 15x12x5 ins., 10 ins. in the ground, for cor. of secs. 11-12-13 and 14, marked with 4 notches on S. and 1 notch on E. edges, from which A pinon 8 ins. diam., bears S. 1° E., 2.10 chs. dist., marked T.40 S. R.4 W. S.13 B.T. A pinon 6 ins. diam., bears S. 3° 30' W., 1.95 chs. dist., marked T.40 S. R.4 W. S.14 B.T. No other trees within limits, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land rolling and mountainous. Soil, rocky 3rd. and 4th. rate. Timber, scattering cedar and pinon. Mountainous land or dense undergrowth on 80.00 chs.

	East, on a random line, bet. secs. 12 and 13.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.04	Intersect Emery Valley Guide Meridian, 3 lks. S. of the cor. to secs. 7-12-13 and 18, heretofore described. Thence I run S. 89° 59' W., on a true line. Bet. secs. 12 and 13. Ascend through heavy cedar and pinon timber.
5.00	Top of ridge, bears N. and S. Descend.
40.02	Set a sandstone 18x12x6 ins., 12 ins. in the ground, for

SUBDIVISIONS OF T.40 S.,R.4 W.,continued.

CHAINS

- $\frac{1}{2}$ sec.cor.,marked $\frac{1}{4}$ on N.face,from which
 A pinon 8 ins.diam.,bears N.43°E.,35 lks,dist.,
 marked $\frac{1}{4}$ S.12 B.T.
 A pinon 10 ins.diam.,bears S.15°W.,15 lks.dist.,
 marked $\frac{1}{4}$ S.13 B.T.
- 44.00 Bottom of ravine,100 ft.deep,course N.W.
 Ascend.
- 53.50 Top of spur,projects N.
 Begin abrupt descent.
- 72.00 Foot of steep descent,bears N.and S.
 Begin gradual descent.
- 76.75 Leave heavy timber,bears N.and S.
 Enter dense artemisia and scattering cedar and pinon
 timber.
- 80.04 The cor.of secs.11-12-13 and 14.
 500 ft.below cor.of secs.7-12-13 and 18.
 Land mountainous.
 Soil,rocky 3rd.and 4th.rate.
 Heavy cedar and pinon timber on 76.75 chs.
 Mountainous land or heavily timbered on 80.04 chs.
 November 8: At this cor.I set off 16°27'S.on decl.ard;
 and at 11h.44m.,a.m.,1.m.t.,observe the sun on the
 meridian,the resulting lat.is 37°21'N!
-
- N.0° 01'W.,bet.secs.11 and 12.
 Over rolling land,descend through dense artemisia and
 scattering cedar and pinon timber.
- 40.00 Set a cedar post,3 ft.long,3 ins.sq.,with marked
 stone,24 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ S.
 on W.face,from which
 A cedar 5 ins.diam.,bears N.64°E.,1.50 chs.dist.,
 marked $\frac{1}{4}$ S.12 B.T.
 A cedar 10 ins.diam.,bears S.62°W.,13 lks.dist.,
 marked $\frac{1}{4}$ S.11 B.T.
- 50.00 Road,bears N.E.and S.W.
- 59.00 Bottom of ravine 100 ft.deep,course S.W.
 Ascend.

SUBDIVISIONS OF T.40 S.,R.4 W.,continued.

CHAINS

- 80.00 Set a sandstone 20x12x5 ins.,15 ins.in the ground,for cor.of secs.1-2-11 and 12,marked with 5 notches on S. and 1 notch on E.edges,dig pits,18x18x12 ins.,in each sec.,5 $\frac{1}{2}$ ft.dist.,and raise a mound of earth,4 ft.base, 2 ft.high,W.of cor.
Land rolling.
Soil,stonny 3rd.rate,
Timber,scattering cedar and pinon.
Dense undergrowth on 80.00 chs.
-
- N.89°59'E.,on a random line,bet.secs.1 and 12.
- 40.00 Set temp. $\frac{1}{4}$ sec'cor.
- 80.02 Intersect Emery Valley Guide Meridian,5 lks.N.of the cor.of secs.1-6-7 and 12,heretofore described.
Thence I run
N.89°59'W.,on a true line,
Bet.secs.1 and 12.
Over rocky land,descend through heavy cedar and pinon timber.
- 20.50 Hollow,75 ft.deep,course S.W.
Ascend. Leave rocky land.
- 40.01 Set a cedar post,3 ft.long,4 ins.sq.,with marked stone,24 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ S. 1 on N.face,and 12 on S.face,from which
A pinon 10 ins.diam.,bears S.54°W.,5 lks.dist.,marked $\frac{1}{4}$ S.12 B.T.
A cedar 3 ins.diam.,bears N.9°E.,10 lks.dist.,marked $\frac{1}{4}$ S.1 B.T.
- 41.00 Leave timber,bears N.E.and S.W.
Enter dense artemisia.
- 48.00 Top of spur,projects S.W.
Descend.
- 60.90 Road,bears N.E.and S.W.
- 63.00 Bottom of ravine,80 ft.deep,course S.W.
Ascend.
- 80.02 The cor.of secs.1-2-11 and 12.

SUBDIVISIONS OF T.40 S.,R.4 W.,continued.

CHAINS

Land,rolling.

Soil, stony and sandy loam, 3rd. and 2nd. rate.

Heavy cedar and pinon timber on 41.00 chs.

Heavily timbered or dense undergrowth on 80.02 chs.

N.0° 01'W., on a random line, bet. secs. 1 and 2.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.04 Intersect N. Bdy. of Tp., 5 lks. W. of the cor. of secs. 1-2-35 and 36, heretofore described.

Thence I run

S.0° 01'W., on a true line,

Bet. secs. 1 and 2.

Over rolling land, ascend through dense artemisia.

40.04 Set a sandstone 15x8x8 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

45.00 Top of ridge, bears E. and W.

Enter scattering cedar and pinon timber.

Descend.

77.10 Road, bears N.E. and S.W.

80.04 The cor. of secs. 1-2-11 and 12.

Land rolling.

Soil, stony 3rd. rate.

Timber, scattering cedar and pinon.

Dense undergrowth on 80.04 chs.

November 8, 1902.

November 9: At 8 a.m., l.n.t., I set off 37°17'W. on lat. arc; 16°40'S. on decl. arc, and determine a true meridian with the solar, on the Eighth Standard Parallel South, at the Stan. Cor. of secs. 34 and 35, heretofore described.

Thence I run

N.0° 01'W., bet. secs. 34 and 35.

Descend through dense artemisia and scattering cedar and pinon timber.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

- 3.75 Bottom of ravine, 100 ft. deep, course N.E.
Ascend.
- 13.50 Top of spur, projects N.E.
Descend.
- 34.00 Hollow, 50 ft. deep, course N.E.
Ascend.
- 39.00 Top of spur, projects N.E.
Descend.
- 40.00 Set a sandstone 12x12x4 ins., 8 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
A cedar 5 ins. diam., bears S. 78° E., 74 lks. dist., marked $\frac{1}{4}$ S. 35 B.T.
A pine, 24 ins. diam., bears S. 79° W., 1.23 chs. dist., marked $\frac{1}{4}$ S. 34 B.T.
- 54.00 Hollow, 50 ft. deep, course N.E. Ascend.
- 63.00 Top of spur, projects N.E.
Begin abrupt descent.
- 65.00 Enter bottom land bears N.E. and W.
Leave timber.
- 68.25 Wash, 20 ft. wide, 15 ft. deep, in bottom of canon, 300 ft. deep, course N.E.
- 70.00 Leave bottom, bears E. and W.
Begin abrupt ascent over sandstone ledges, bearing E. and W.
- 78.45 Top of sandstone spur, 200 ft. above bottom of canon, projects S.
Leave ledges, ascend along top of spur.
Enter heavy cedar and pinon timber, bears E. and W.
- 80.00 Set a sandstone 18x12x5 ins., 12 ins. in the ground, for cor. of secs. 26-27-34 and 35, marked with 1 notch on S. and 2 notches on E. edges, from which
A pinon 6 ins. diam., bears N. 78° E., 40 lks. dist., marked T. 40 S. R. 4 W. S. 26 B.T.
A pinon 8 ins. diam., bears S. 6° E., 21 lks. dist., marked T. 40 S. R. 4 W. S. 35 B.T.
A pinon 12 ins. diam., bears S. 63° W., 60 lks. dist.,

SUBDIVISIONS OF T.40 S.,R.4 W.,continued.

CHAINS	
	<p>marked T.40 S.,R.4 W. S.34 B.T. A pinon 10 ins.diam.,bears N.5°W.,45 lks.dist., marked T.40 S. R.4 W. S.27 B.T. Land mountainous. Soil,rocky 3rd.and 4th.rate. Timber,dense on 1.55 chs. balance scattering. Mountainous land on 80.00 chs.</p>
	<hr/>
	<p>East,on a random line,bet.secs.26 and 35.</p>
40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.06	Intersect N.and S.line,5 lks.S.of the cor.of secs. 25-26-35 and 36.
	Thence I run
	<p>S.89° 58'W.,on a true line, Bet.secs.26 and 35.</p>
	Over bottom land,ascend gradually through dense artemisia and grease wood,in bottom of canon.
2.00	Deer Spring Wash,75 lks.wide,15 ft.deep,course S., road in bottom of wash,bears N.and S.
9.00	Wash,30.ft.wide,15 ft.deep,course S.E.
20.00	Point of spur,projecting N.W. Begin gradual descent.
40.03	Set a sandstone 15x10x8 ins.,10 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on N.face,and raise a mound of stone 2 ft.base,1 $\frac{1}{2}$ ft.high,N.of cor. Pits impracticable.
40.25	Wash,30 ft.wide,15 ft.deep,course N.E. Begin gradual ascent.
70.00	Leave bottom land bears N.E.and S.W. Begin abrupt ascent over rocky land.
80.06	Top of spur,projecting S. The cor.of secs.26-27-34 and 35.,200 ft.above canon. Land bottoms and mountainous. Soil,sandy and rocky 3rd.rate. No timber.

SUBDIVISIONS OF T.40 S.,R.4 W.,continued.

CHAINS	
	<p>Mountainous land and dense undergrowth on 80.06 chs. November 9: At this cor.I set off $16^{\circ}45'$ S.on decl.arc; and at 11h.44m.,a.m.,l.m.t.,observe the sun on the maridian,the resulting lat.is $37^{\circ}18'$ N.</p> <hr style="width: 20%; margin: 20px auto;"/> <p style="text-align: center;">N.0° 01'W.,bet.secs.26 and 27.</p> <p>Ascend along top of spur ridge,bearing N.and S.,through heavy cedar and pinon timber.</p>
11.00	<p>Bend in ridge,bears N.W.and S., Descend.</p>
39.40	<p>Bottom of ravine,100 ft.deep,course S.E. Ascend.</p>
40.00	<p>Set a sandstone 18x10x6 ins.,12 ins.in the ground, for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$.on W.face,from which A pinon 6 ins.diam.,bears N.37°E.,16 lks.dist., marked $\frac{1}{4}$ S.26 B.T. A pinon 15 ins.diam.,bears N.60°W.,48 lks.dist., marked $\frac{1}{4}$ S.27 B.T.</p>
50.40	<p>Top of spur,projects S.E. Descend.</p>
59.00	<p>Bottom of ravine,100 ft.deep,course S.E. Ascend.</p>
69.00	<p>Top of spur,projects S.E. Descend.</p>
76.00	<p>Hollow,50 ft.deep,course S.E. Ascend.</p>
80.00	<p>Set a sandstone 18x10x5 ins.,12 ins.in the ground,for cor.of secs.22-23-26 and 27,marked with 2 notches on S.and E.edges,from which A pinon 5 ins.diam.,bears N.15°E.,23 lks.dist., marked T.40 S. R.4 W. S.23 B.T. A pinon 5 ins.diam.,bears S.6°E.,18 lks.dist., marked T.40 S. R.4 W. S.26 B.T. A pinon 6 ins.diam.,bears S.62°W.,33 lks.dist., marked T.40 S. R.4 W. S.27 B.T.</p>

SUBDIVISIONS OF T.40 S.R.4 W., continued.

CHAINS

A cedar 10 ins.diam., bears N.16°W., 19 lks.dist., marked T.40 S. R.4 W. S.22 B.T.

Land broken.

Soil, stony 3rd. rate.

Heavy cedar and pinon timber on 80.00 chs.

Heavily timbered on 80.00 chs.

N.89°58'E., on a random line, bet. secs. 23 and 26.

40.00 Set temp. 1/4 sec. cor.

80.02 Intersect N. and S. line, 7 lks. N. of the cor. of secs. 23-24-25 and 26.

Thence I run

N.89°59'W., on a true line,

Bet. secs. 23 and 26.

Over rocky land, through dense artemisia and scattering cedar and pinon timber.

6.50 Top of spur, projects S.W.

Descend.

8.00 Enter bottom land, bears N. and S.W.

Leave timber.

13.00 Deer Spring Wash, 75 lks. wide, 20 ft. deep, course S., road in bottom of wash, bears N. and S., in canon 200 ft. deep, course S.

19.00 Leave bottom land, bears N. and S.

Ascend through scattering cedar and pinon timber.

40.01 Set a sandstone 12x12x6 ins., 8 ins. in the ground, for 1/4 sec. cor., marked 1/4 on N. face, from which

A cedar 10 ins.diam., bears N.31°E., 42 lks.dist., marked 1/4 S.23 B.T.

A cedar 14 ins.diam., bears S.36°E., 32 lks.dist., marked 1/4 S.26 B.T.

53.00 Top of ridge, bears N.W. and S.E.

Enter heavy cedar and pinon timber, bears N.W. and S.E.

Descend.

80.02 The cor. of secs. 22-23-26 and 27.

SUBDIVISIONS OF T.40 S. R.4 W., continued.

CHAINS

Land rolling and mountainous.

Soil, sandy and stony 3rd. rate.

Heavy cedar and pinon on 17.00 chs.

Heavily timbered or dense undergrowth on 80.02 chs.

November 9, 1902.

November 10: At 8 a.m., l.m.t., I set off $37^{\circ} 19' N.$ on lat. arc; $16^{\circ} 57' S.$ on decl. arc; and determine a true meridian with the solar, at the cor. of secs. 22-23-26 and 27.

Thence I run

$N. 0^{\circ} 01' W.$, bet. secs. 22 and 23.

Ascend through heavy cedar and pinon timber.

10.25 Top of spur, projects S.E.

Descend over rolling land.

40.00 Set a sandstone $18 \times 16 \times 3$ ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
A cedar 6 ins. diam., bears $S. 56^{\circ} W.$, 65 lks. dist., marked $\frac{1}{4}$ S. 22 B.T.

A pinon 5 ins. diam., bears $S. 86^{\circ} E.$, 54 lks. dist., marked $\frac{1}{4}$ S. 23 B.T.

46.50 Leave heavy timber, bears E. and W.

Enter dense artemisia and scattering oak, cedar and pinon.

64.50 Wash, 5×5 ft., course N.E.

Ascend.

68.00 Top of spur, projects N.E.

Descend.

71.50 Wash, 4×4 ft., course N.E.

Ascend.

75.25 Top of spur, projects N.E.

Descend.

80.00 Set a sandstone $18 \times 10 \times 6$ ins., 12 ins. in the ground, for cor. of secs. 14-15-22 and 23, marked with 3 notches on S. and 2 notches on E. edges, from which

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

A cedar 10 ins.diam., bears N.45°E., 1.29 chs.dist.,
marked T.40 S. R.4 W. S.14 B.T.

A cedar 4 ins.diam., bears S.20°E., 64 lks.dist.,
marked T.40 S. R.4 W. S.23 B.T.

A cedar 3 ins.diam., bears S.29°W., 74 lks.dist.,
marked T.40 S. R.4 W. S.22 B.T.

A cedar 3 ins.diam., bears N.20°W., 74 lks.dist.,
marked T.40 S. R.4 W. S.15 B.T.

Land rolling.

Soil, stony 3rd.rate.

Heavy cedar and pinon on 46.50 chs.

Heavily timbered or dense undergrowth on 80.00 chs.

S.89° 59'E., on a random line, bet.secs.14 and 23.

40.00 Set temp. $\frac{1}{4}$ sec.cor.

80.06 Intersect N.and S.line, 5 lks.N.of the cor.of secs.
13-14-23 and 24.

Thence I run

N.89° 57'W., on a true line,

Bet.secs.14 and 23.

Descend over broken sandstone ledges.

2.00 Leave ledges bear N.and S.

Descend through dense artemisia, oak and scattering
cedar and pinon timber.

19.00 Road, bears N.and S., in bottom of ravine, 300 ft.deep,
course S.

Ascend.

Enter heavy cedar and pinon timber, bears N.and S.

24.00 Top of spur, projects S.

Descend.

27.00 Bottom of ravine, 100 ft.deep, course S.E.

Ascend

40.03 Set a sandstone 15x10x6 ins., 10 ins.in the ground, for

$\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face, from which

A cedar 5 ins.diam., bears S.52°30'E., 44 lks.dist.,
marked $\frac{1}{4}$ S.23 B.T.

SUBDIVISIONS OF T.40 S.,R.4 W.,continued.

CHAINS	
52.00	<p>A cedar 7 ins.diam.,bears N.70°E.,27 lks.dist., marked $\frac{1}{2}$ S.14 B.T.</p> <p>Top of spur,projects S.</p> <p>Leave timber,bears N.and S.</p> <p>Descend.</p>
58.35	Brush fence,bears N,and S.
60.50	Enter bottom land.
61.50	Road,bears N.E.and S.W.
66.50	<p>Deer Spring Creek,3lks.wide,4 ins.deep,in wash,1.00 ch.wide,40 ft.deep,in canon 200 ft.deep,course S.E.</p> <p>From this point,the log house belonging to Henry Clark,bears N.,5.00 chs.dist.</p>
71.50	<p>Leave bottom land,bears N.W.and S.E.</p> <p>Ascend through scattering cedar and pinon timber.</p>
80.06	<p>The cor.of secs.14-15-22 and 23.</p> <p>Land mountainous.</p> <p>Soil,rocky and sandy loam,2nd.,3rd.,and 4th.rate.</p> <p>Heavy cedar and pinon on 33.00 chs.</p> <p>Mountainous land on 80.06 chs.</p>
	<p>November 10: At this cor.I set off 17° 02'S.on decl. arc,and at 11h.44m.,a.m.,1.m.t.,observe the sun on the meridian,the resulting lat.is 37° 20'N.</p>
6.00	<p>N.0° 01'W.,bet.secs.14 and 15.</p> <p>Descend through dense artemisia and grease wood brush.</p> <p>Enter bottom land,bears N.W.and S.E.</p> <p>Over level land.</p>
14.65	Deer Spring Creek,3 lks.wide,4 ins.deep,in wash,1.00 ch.wide,50 ft.deep,course S.E.
23.75	<p>Wash,75 lks.wide,40 ft.deep,course S.W.</p> <p>Begin gradual ascent.</p>
28.50	Enter scattering cedar and pinon timber.
40.00	<p>Set a sandstone 20x12x6 ins.,15 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on W.face,from which</p> <p>A cedar 11 ins.diam.,bears N.8°E.,48.lks.dist.,marked</p>

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS	
	$\frac{1}{4}$ S.14 B.T. A cedar 6 ins.diam., bears N.10°30'W., 1.42 chs.dist., marked $\frac{1}{4}$ S.15 B.T.
43.00	Road, bears S.W. and N. Thence along and on road.
66.00	Leave road, bears N.E. and S.
80.00	Set a sandstone, 15x10x8 ins., 10 ins. in the ground, for cor. of secs. 10-11-14 and 15, marked with 4 notches on S. and 2 notches on E. edges, from which A cedar 24 ins.diam., bears N.86°E., 1.18 chs.dist., marked T.40 S. R.4 W. S.11 B.T. A cedar 7 ins.diam., bears S.74°E., 1.08 chs.dist., marked T.40 S. R.4 W. S.14 B.T. A cedar 15 ins.diam., bears S.75°W., 1.03 chs.dist., marked T.40 S. R.4 W. S.15 B.T. A cedar 5 ins.diam., bears N.76°W., 83 lks.dist., marked T.40 S. R.4 W. S.10 B.T. Land bottoms. Soil, sandy loam, 2nd. rate. Timber, scattering cedar and pinon. Dense undergrowth on 80.00 chs.
	<hr/>
	S.89° 57'E., on a random line, bet. secs. 11 and 14.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.00	Intersect N. and S. line, 5 lks. S. of the cor. of secs. 11-12-13 and 14. Thence I run $N.89^{\circ} 59' W.$, on a true line, Bet. secs. 11 and 14. Descend through dense artemisia.
16.50	Bottom of ravine, 100 ft. deep, course S. Ascend.
19.00	Road, bears N. and S.
40.00	Set a pinon post, 3 ft. long, 4 ins. sq., with marked stone 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ S.11 on

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS	
	N. and 14 on S. faces, dig pits, 18x18x12 ins., E. and W. of post, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.
52.00	Top of ridge, bears N. and S. Enter scattering cedar and pinon timber. Descend.
63.00	Enter bottom land, bears N. and S. Over level land.
71.00	Wash, 25x25 ft., course S.
77.50	Road, bears N. and S.
80.00	The cor. of secs. 10-11-14 and 15. Land rolling. Soil, stony and sandy loam, 2nd. and 3rd. rate. Timber, scattering cedar and pinon. Dense undergrowth on 80.00 chs.
November 10. 1902.	

November 11: At 8 a.m., l.m.t., I set off 37° 21' N. on lat. arc; 17° 13' S. on decl. arc, and determine a true meridian with the solar, at the cor. of secs. 10-11-14 and 15.	
Thence I run	
N. 0° 01' W., bet. secs. 10 and 11.	
Over bottom land, ascend gradually through dense artemisia and scattering cedar and pinon timber.	
27.00	Road, bears N.W. and S.E.
29.15	Wash, 20 ft. wide, 15 ft. deep, course S.E.
40.00	Set a sandstone 20x 12x5 ins., 15 ins. in the ground, for ¼ sec. cor., marked ¼ on W. face, dig pits, 18x18x12 ins., N. and S. of stone, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high, W. of cor.
61.00	Leave bottom, bears N.W. and S.E. Begin abrupt ascent over rocky land.
65.00	Top of abrupt ascent, bears E. and W. Begin gradual ascent.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

- 80.00 Set a sandstone 24x8x4 ins., 12 ins. in the ground, for cor. of secs. 2-3-10 and 11, marked with 5 notches on S. and 2 notches on E. edges, from which
- A cedar 4 ins. diam., bears S. 4°30' E., 34 lks. dist., marked T.40 S. R.4 W. S.11 B.T.
- A pinon 4 ins. diam., bears N. 8°30' E., 2.17 chs. dist., marked T.40 S. R.4 W. S.2 B.T.
- A cedar 5 ins. diam., bears S. 85° W., 90 lks. dist., marked T.40 S. R.4 W. S.10 B.T.
- A cedar 6 ins. diam., bears N. 58° W., 1.00 ch. dist., marked T.40 S. R.4 W. S.3 B.T.
- Land, bottoms and rolling.
- Soil, sandy loam and stony, 2nd. and 3rd. rate.
- Timber, scattering cedar and pinon.
- Dense undergrowth on 80.00 chs.
-
- S. 89° 59' E., on a random line, bet. secs. 2 and 11.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 79.98 Intersect N. and S. line, 3 lks. S. of the cor. of secs. 1-2-11 and 12.
- Thence I run
- West, on a true line,
- Bet. secs. 2 and 11.
- Over rolling land, ascend through dense artemisia.
- 3.50 Road, bears N.E. and S.W.
- 39.99 Set a sandstone 18x12x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, dig pits, 18x18x12 ins. E. and W. of stone, 3 ft. dist., and raise a mound of earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
- 50.00 Top of low ridge, bears N. and S.
- Begin gradual descent.
- 71.00 Bottom of hollow, 50 ft. deep, course S.
- Begin gradual ascent.
- 79.98 The cor. of secs. 2-3-10 and 11.

SUBDIVISIONS OF T.40 S.,R.4 W.,continued.

CHAINS

Land rolling.

Soil, stony 3rd. rate.

No timber.

Dense undergrowth on 79.98 chs.

November 11: At this cor. I set off 17°16'S. on decl. arc, and at 11h.44m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37° 22' N.

N. 0° 01' W., on a random line, bet. secs. 2 and 3.

40.00 Set temp. 1/4 sec. cor.

80.05 Intersect N. Bdy. of Tp., 3 lks. W. of the cor. of secs. 2-3-34 and 35, heretofore described.

Thence I run

South, on a true line.

Bet. secs. 2 and 3.

Descend through heavy cedar and pinon timber.

7.50 Head of ravine, course S.W.

Ascend.

18.50 Top of spur, projects W.

Descend.

39.00 Leave timber, bears E. and W.

Enter dense artemisia.

40.05 Set a sandstone 18x15x4 ins., 12 ins. in the ground, for 1/4 sec. cor., marked 1/4 on W. face, from which
A cedar 15 ins. diam., bears N. 21° W., 1.18 chs. dist., marked 1/4 S. 3 B.T.

A cedar 10 ins. diam., bears N. 3° E., 1.19 chs. dist., marked 1/4 S. 2 B.T.

80.05 The cor. of secs. 2-3-10 and 11.

Land rolling.

Soil, stony 3rd. rate.

Heavy cedar and pinon timber on 39.00 chs.

Heavily timbered or dense undergrowth on 80.05 chs.

November 11, 1902.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

November 12: At 8 a.m., l.m.t., I set off $37^{\circ} 17' N.$ on lat. arc; $17^{\circ} 31' S.$ on decl. arc, and determine a true meridian with the solar, on the Eighth Standard Parallel South, at the Stan. Cor. of secs. 33 and 34, heretofore described.

Thence I run

$N. 0^{\circ} 02' W.$, bet. secs. 33 and 34.

Descend through heavy cedar and pinon timber.

1.25 Bottom of ravine, 75 ft. deep, course N.W.

Ascend.

4.00 Top of spur, projects N.W.

Descend.

5.00 Hollow, 50 ft. deep, course N.W.

Ascend.

12.50 Top of spur, projects W.

Descend.

30.50 Bottom of ravine, 150 ft. deep, course N.E.

Ascend.

40.00 Set a sandstone $12 \times 10 \times 8$ ins., 8 ins. in the ground, for

$\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which

A pinon 6 ins. diam., bears West, 90 lks. dist., marked

$\frac{1}{4}$ S. 33 B.T.

A pinon 8 ins. diam., bears $N. 28^{\circ} E.$, 20 lks. dist., marked

$\frac{1}{4}$ S. 34 B.T.

52.00 Top of ridge, bears E. and W.

Descend.

80.00 Set a sandstone $20 \times 12 \times 4$ ins., 15 ins. in the ground, for

cor. of secs. 27-28-33 and 34, marked with 1 notch on

S. and 3 notches on E. edges, from which

A pinon 10 ins. diam., bears $N. 89^{\circ} E.$, 39 lks. dist., marked

T. 40 S. R. 4 W. S. 27 B.T.

A pinon 14 ins. diam., bears $S. 36^{\circ} E.$, 62 lks. dist.,

marked T. 40 S. R. 4 W. S. 34 B.T.

A pinon 7 ins. diam., bears $S. 28^{\circ} W.$, 51 lks. dist.,

marked T. 40 S. R. 4 W. S. 33 B.T.

SUBDIVISIONS OF T.40 S.,R.4 W.,continued.

CHAINS	
	A pinon 12 ins.diam.,bears N.59°W.,7 lks,dist., marked T.40 S. R.4 W. S.28 B.T. Land mountainous. Soil,rocky 3rd.rate. Heavy cedar and pinon timber on 80.00 chs. Heavily timbered on 80.00 chs.
	—————
	East,on a random line,bet.secs.27 and 34.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
79.96	Intersect N.and S.line,3 lks.N.of the cor.of secs. 26-27-34 and 35. Thence I run N.89° 59'W.,on a true line, Bet.secs.27 and 34. Descend,through heavy cedar and pinon timber,
2.00	Begin abrupt descent over sandstone ledges,bearing N.and S.Leave heavy enter scattering timber.
5.00	Bottom of ravine,150 ft.deep,course S. Ascend over sandstone ledges.
13.00	Top of sandstone spur,projects S. Abrupt descent over sandstone ledges.
22.00	Bottom of ravine,100 ft.deep,course S. Ascend over sandstone ledges.
34.75	Top of sandstone spur,projects S. Begin abrupt descent.
36.50	Foot of steep descent. Enter bottom bears N.W.and S.E. Leave timber,enter dense artemisia and grease wood brush.
39.00	Set a sandstone 18x14x4 ins.,12 ins.in the ground,for witness cor.to $\frac{1}{4}$ sec.cor.,marked W.C. $\frac{1}{4}$ on N.,and raise a mound of stone 2 ft.base,1 $\frac{1}{2}$ ft.high,N.of cor. Pits impracticable.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

- 39.50 Wash, 1.00 ch. wide, 40 ft. deep, in bottom of canon, 300 ft. course S.E.
- 39.98 Point for $\frac{1}{4}$ sec. cor. falls in the wash, so I do not set it.
- 49.00 Leave bottom land, bears N.W. and S.E.
Enter heavy cedar and pinon timber, bears N.W. and S.E.
Ascend.
- 66.00 Top of spur, projects N.E.
Descend.
- 79.96 The cor. of secs. 27-28-33 and 34.
Land mountainous.
Soil, rocky and sandy 3rd. and 4th. rate.
Heavy cedar and pinon timber on 33.00 chs.
Mountainous land on 79.96 chs.
November 12: At this cor. I set off $17^{\circ} 35' S.$ on decl. arc, and at 11h.44m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ} 18' N.$
-
- $N. 0^{\circ} 02' W.$, bet. secs. 27 and 28.
Descend through heavy cedar and pinon timber.
- 3.00 Bottom of ravine, 100 ft. deep, course N.E.
Ascend.
- 16.50 Top of spur, projects N.E.
Descend.
- 34.50 Bottom of ravine, 150 ft. deep, course S.E.
Ascend.
- 40.00 Set a sandstone $16 \times 12 \times 3$ ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
A cedar 5 ins. diam., bears $S. 36^{\circ} E.$, 33 lks. dist., marked $\frac{1}{4} S. 27$ B.T.
A cedar 7 ins. diam., bears $N. 47^{\circ} W.$, 41 lks. dist., marked $\frac{1}{4} S. 18$ B.T.
- 54.00 Top of spur, projects S.E.
Descend.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS	
66.00	Bottom of canon, 300 ft. deep, course S.E. Ascend.
75.00	Top of spur, projects S.W. Descend.
77.00	Hollow, 50 ft. deep, course S.W. Ascend.
80.00	Set a sandstone 16x10x6 ins., 11 ins. in the ground, for cor. of secs. 21-22-27 and 28, marked with 2 notches on S. and 3 notches on E. edges, from which A cedar 8 ins. diam., bears N.25°E., 2.58 chs. dist., marked T.40 S. R.4 W. S.22 B.T. A cedar 10 ins. diam., bears S.55°E., 1.76 chs. dist., marked T.40 S. R.4 W. S.27 B.T. A cedar 12 ins. diam., bears S.70°W., 2.00 chs. dist., marked T.40 S. R.4 W. S.28 B.T. A cedar 3 ins. diam., bears N.38°W., 1.95 chs. dist., marked T.40 S. R.4 W. S.21 B.T. Land, mountainous. Soil, stony 3rd. rate. Heavy cedar and pinon timber on 80.00 chs. Heavily timbered on 80.00 chs.
	S.89° 59'E., on a random line, bet. secs. 22 and 27.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.02	Intersect N. and S. line, 3 lks. N. of the cor. of secs. 22-23-26 and 27.
	Thence I run
	N.89° 58'W., on a true line,
	Bet. secs. 22 and 27.
	Descend through heavy cedar and pinon timber.
2.00	Hollow, 50 ft. deep, course S.E. Ascend.
7.00	Top of ridge, bears N.W. and S.E. Descend.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

25.00 Bottom of ravine, 100 ft. deep, course S.E.

Ascend.

40.001 Set a sandstone 15x10x8 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which

A cedar 6 ins. diam., bears N.19° E., 8 lks. dist., marked $\frac{1}{4}$ S.22 B.T.

A cedar 8 ins. diam., bears S.6° E., 42 lks. dist., marked $\frac{1}{4}$ S.27 B.T.

46.50 Top of ridge, bears N.W. and S.E.

Descend.

63.00 Hollow, 50 ft. deep, course S.W.

Ascend.

73.00 Top of spur, projects S.W.

Descend.

78.00 Hollow, 50 ft. deep, course S.W.

Ascend.

80.02 The cor. of secs. 21-22-27 and 28.

Land broken.

Soil, stony 3rd. rate.

Heavy cedar and pinon timber on 80.02² chs.

Heavily timbered on 80.02² chs.

November 12, 1902.

November 13: At 8 a.m., l.m.t., I set off 37° 19' N. on lat. arc; 17° 46' S. on decl. arc, and determine with the solar a true meridian, at the cor. of secs. 21-22-27 and 28.

Thence I run

N.0° 02' W., bet. secs. 21 and 22.

Ascend through heavy cedar and pinon timber.

27.00 Top of ridge, bears N.W. and S.E.

Descend.

40.00 Set a sandstone 15x8x8 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS	
	A cedar 6 ins.diam., bears S.42°W., 21 lks.dist., marked $\frac{1}{2}$ S.21 B.T.
	A cedar 5 ins.diam., bears N.48°E., 19 lks.dist., marked $\frac{1}{4}$ S.22 B.T.
53.00	Hollow, 50 ft. deep, course S.E. Ascend.
65.50	Top of spur, projects S.E. Descend.
72.50	Bottom of ravine, 100 ft. deep, course S.E. Ascend.
80.00	Set a sandstone 18x12x6 ins., 12 ins. in the ground for cor. of secs. 15-16-21 and 22, marked 40 S. on N.E., and 4 W. on S.E. face, and with 3 notches on S. and E. edges, from which A pinon 6 ins. diam., bears N.68°E. 5 lks. dist., marked T.40 S. R.4 W. S.15 B.T. A cedar 6 ins. diam., bears S.15°E., 18 lks. dist., marked T.40 S. R.4 W. S.22 B.T. A pinon 6 ins. diam., bears S.53°W., 13 lks. dist., marked T.40 S. R.4 W. S.21 B.T. A cedar 12 ins. diam., bears N.44°W., 31 lks. dist., marked T.40 S. R.4 W. S.16 B.T. Land rolling. Soil, stony 3rd. rate. Heavy cedar and pinon timber on 80.00 chs. Heavily timbered on 80.00 chs.
	—————
	S.89° 58'E., in a random line, bet. secs. 15 and 22.
40.00	Set temp. $\frac{1}{2}$ sec. cor.
79.90	Intersect N. and S. line, 3 lks. S. of the cor. of secs. 14-15-22 and 23. Thence I run N.89° 59'W., on a true line, Bet. secs. 15 and 22.

SUBDIVISIONS OF T.40 S. R.4 W., continued.

CHAINS	
	Over rocky land, ascend through dense artemisia and scattering cedar and pinon timber.
9.00	Enter heavy cedar and pinon timber, bears N.W. and S.E.
39.95	Set a sandstone 15x10x6 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which A cedar 15 ins. diam., bears N. 8° E., 64 lks. dist., marked $\frac{1}{4}$ S. 15 B.T. A pinon 5 ins. diam., bears S. 89° E., 89 lks. dist., marked $\frac{1}{4}$ S. 22 B.T.
63.00	Top of ridge, bears N.W. and S.E. Descend.
79.90	The cor. of secs. 15-16-21 and 22. Land rolling. Soil, rocky 3rd. rate. Heavy cedar and pinon timber on 70.90 chs. Heavily timbered or dense undergrowth on 79.90 chs. November 13: At this cor. I set off 17° 50' S. on decl. arc, and at 11h. 44m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is 37° 20' N.
	N. 0° 02' W., bet. secs. 15 and 16.
13.00	Ascend through heavy cedar and pinon timber. Top of ridge, bears N.W. and S.E. Descend.
32.00	Leave timber, bears E. and W. Enter dense artemisia.
40.00	Set a sandstone 16x8x4 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Enter bottom land, bears N.W. and S.E.
42.20	Road, bears N.W. and S.E.
63.20	Deer Spring Wash, 75 lks. wide, 25 ft. deep, course S.E.
70.00	Wash, 30 ft. wide, 20 ft. deep, course S.W.
72.50	Same wash, course S.E.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

- Begin gradual ascent.
- 80.00 Set a sandstone 16x10x4 ins., 11 ins. in the ground, for cor. of secs. 9-10-15 and 16, marked with 4 notches on S. and 3 notches on E. edges, dig pits, 18x18x12 ins., in each sec., $5\frac{1}{2}$ ft. dist., and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.
- Land rolling.
- Soil, stony and bottoms, 2nd. and 3rd. rate.
- Heavy cedar and pinon timber on 32.00 chs.
- Heavily timbered or dense undergrowth on 80.00 chs.
-
- S. $89^{\circ} 59'$ E., on a random line, bet. secs. 10 and 15.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 79.98 Intersect N. and S. line, 3 lks. S. of the cor. of secs. 10-11-14 and 15.
- Thence I run
- West, on a true line,
- Bet. secs. 10 and 15.
- Over bottom land, through dense artemisia and scattering cedar and pinon timber.
- 3.00 Leave bottom, bears N. and S.
- Ascend.
- 6.50 Top of ridge, bears N. and S.
- Descend.
- 22.00 Bottom of ravine, 75 ft. deep, course S.
- Ascend.
- 32.50 Top of ridge, bears N. and S.
- Enter heavy cedar and pinon, bears N. and S.
- Descend.
- 39.99 Set a sandstone 15x10x4 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which
- A cedar 15 ins. diam., bears N. 12° E., 40 lks. dist., marked $\frac{1}{4}$ S. 10 B.T.
- A pinon 7 ins. diam., bears S. 32° W., 18 lks. dist., marked $\frac{1}{2}$ S. 15 B.T.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

- 41.00 Bottom of ravine, 100ft. deep, course S.E.
Ascend.
- 54.75 Top of ridge, bears N. and S.
Descend over broken land.
- 69.50 Leave timber, bears N. and S.
- 77.00 Enter bottom land, bears N. and S.
- 79.98 The cor. of secs. 9-10-15 and 16.
Land rolling.
Soil, stony and sandy loam, 2nd. and 3rd. rate.
Heavy cedar and pinon timber on 37.00 chs.
Heavily timbered or dense undergrowth on 79.98 chs.
-
- N.0° 02' W., bet. secs. 9 and 10.
Over bottom land, ascend gradually through dense artemisia.
- 38.00 Enter scattering cedar and pinon timber.
- 40.00 Set a sandstone 20x8x8 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
A cedar 10 ins. diam., bears S. 75° E., 2.40 chs. dist., marked $\frac{1}{4}$ S. 10 B.T.
A cedar 10 ins. diam., bears N. 73° W., 2.49 chs. dist., marked $\frac{1}{4}$ S. 9 B.T.
- 46.00 Leave bottom land, bears E. and W.
Begin abrupt ascent.
- 59.00 Top of ridge, 300 ft. above $\frac{1}{4}$ sec. cor., bears E. and W.
Enter heavy cedar and pinon timber, bears E. and W.
Descend.
- 80.00 Set a sandstone 24x10x6 ins., 18 ins. in the ground, for cor. of secs. 3-4-9 and 10, marked with 5 notches on S. and 3 notches on E. edges, from which
A pinon 6 ins. diam., bears N. 86° E., 43 lks. dist., marked T.40 S. R.4 W. S.3 B.T.
A pinon 10 ins. diam., bears S. 41° E., 44 lks. dist., marked T.40 S. R.4 W. S.10 B.T.
A pinon 7 ins. diam., bears S. 83° W., 59 lks. dist.,

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

marked T.40 S. R.4 W. S.9 B.T.

A pinon 12 ins.diam., bears N.77°W., 92 lks.dist., marked
T.40 S. R.4 W. S.4 B.T.

Land bottoms and mountainous.

Soil, stony and sandy loam, 2nd. and 3rd. rate.

Heavy cedar and pinon on 21.00 chs.

Heavily timbered or dense undergrowth on 80.00 chs.

November 13, 1902.

November 14: At 8 a.m., 1 m.t., I set off 37°22' N. on lat.
arc; 18° 02' S. on decl. arc, and determine a true
meridian with the solar, at the cor. of secs. 3-4-9 and
10.

Thence I run

East, on arandom line, bet. secs. 3 and 10.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.02 Intersect N. and S. line, 5 lks. S. of the cor. of secs.
2-3-10 and 11.

Thence I run

S. 89° 58' W!, on a true line

Bet. secs. 3 and 10.

Over level land, through dense artemisia.

12.00 Begin abrupt descent, bears N. and S.

16.25 Foot of steep descent, bears N. and S.

Wash, 20 ft. wide, 15 ft. deep, course S.

Enter bottom land.

22.50 Road, bears N.W. and S.E.

35.00 Leave bottom land, bears N.W. and S.E.

Begin abrupt ascent.

Enter heavy cedar and pinon timber, bears N.W. and S.E.

40.01 Set a sandstone 12x10x9 ins., 8 ins. in the ground, for
 $\frac{1}{4}$ sec. cor. marked $\frac{1}{4}$. . . on N. face, from which

A pinon 8 ins. diam., bears North, 30 lks. dist., marked
 $\frac{1}{4}$ S. 3 B.T.

A cedar 22 ins. diam., bears S. 81° E., 22 lks. dist.,

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SUBDIVISIONS OF T.40 S. R.4 W., continued.

CHAINS	marked $\frac{1}{4}$ S.10 B.T.
56.00	Top of spur ridge, projects N. Descend.
77.00	Hollow, 50 ft. deep, course N. Ascend.
80.02	The cor. of secs. 3-4-9 and 10. Land rolling and bottom. Soil, stony and sandy loam, 2nd. and 3rd. rate. Heavy cedar and pinon timber on 45.00 chs. Heavily timberec or dense undergrowth on 80.02 chs.

	N.0°02'W., on a random line, bet. secs. 3 and 4.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.06	Intersect N. Bdy. of Tp., 3 lks. W. of the cor. of secs. 3-4-33 and 34, heretofore described. Thence I run S.0° 01'E., on a true line, Bet. secs. 3 and 4. Over level bottom land, through dense artemisia.
1.20	Wash, 15 ft. wide, 10 ft. deep, course S.E.
19.00	Leave bottom land, bears N.W. and S.E. Ascend.
24.00	Top of spur, projects E. Enter heavy cedar and pinon timber, bears E. and W. Descend.
36.25	Bottom of ravine, 75 ft. deep, course S.E. Ascend.
40.06	Set a sandstone 20x12x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which A cedar 12 ins. diam., bears S.38°W., 20 lks. dist., marked $\frac{1}{4}$ S.4 B.T. A pinon 4 ins. diam., bears E., 58 lks. dist., marked $\frac{1}{4}$ S.3 B.T.
44.00	Top of spur, projects S.E. Descend.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS	
52.00	Bottom of ravine, 100 ft. deep, course S.E. Ascend.
64.00	Top of spur, projects N.W. Descend.
70.00	Bottom of ravine, 100 ft. deep, course N.W. Ascend.
80.06	The cor. of secs. 3-4-9 and 10. Land rolling and bottom. Soil, stony and sandy loam, 3rd. and 2nd. rate. Heavy cedar and pinon timber on 56.00 chs. Heavily timbered or dense undergrowth on 80.06 chs. November 14: At this cor. I set off $18^{\circ} 08' S.$ on decl. arc, and at 11h.44m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ} 21' 38'' N.$
	From the Stan. Cor. of secs. 32 and 33, on the Eighth Standard Parallel South, heretofore described, I run.
	$N. 0^{\circ} 03' W.$, bet. secs. 32 and 33.
	Ascend through heavy cedar and pinon timber.
17.00	Top of ridge, bears N.E. and S.W. Descend.
40.00	Set a pinon post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground, for $\frac{1}{2}$ sec. cor. marked $\frac{1}{2}$ 32 on W. and 33 on E. face, from which A cedar 4 ins. diam., bears $N. 4^{\circ} E.$, 42 lks. dist., marked $\frac{1}{4}$ S. 33 B.T. A cedar 4 ins. diam., bears $S. 67^{\circ} W.$, 67 lks. dist., marked $\frac{1}{4}$ S. 32 B.T.
45.00	Leave timber, bears E. and W. Enter dense artemisia and scattering oak brush.
75.00	Bottom of ravine, 100 ft. deep, course E. Enter heavy cedar and pinon timber, bears E. and W. Ascend.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS	
80.00	<p>Set a sandstone 18x12x9 ins., 12 ins. in the ground, for cor. of secs. 28-29-32 and 33, marked with 1 notch on S. and 4 notches on E. edges, from which</p> <p>A cedar 30 ins. diam., bears N. 31° E., 1.31 chs. dist., marked T.40 S. R.4 W. S.28 B.T.</p> <p>A cedar 4 ins. diam., bears S. 86° E., 25 lks. dist., marked T.40 S. R.4 W. S.33 B.T.</p> <p>A cedar 10 ins. diam., bears N. 38° W., 95 lks. dist., marked T.40 S. R.4 W. S.29 B.T.</p> <p>No other trees within limits, and raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor.</p> <p>Pits impracticable.</p> <p>Land rolling.</p> <p>Soil, stony 3rd. rate.</p> <p>Heavy cedar and pinon on 50.00 chs..</p> <p>Heavily timbered or dense undergrowth on 80.00 chs.</p>
<hr/>	
East, on a random line, bet. secs. 28 and 33.	
40.00	Set temp. ¼ sec. cor.
80.02	<p>Intersect N. and S. line, 9 lks. N. of the cor. of secs. 27-28-33 and 34.</p> <p>Thence I run</p> <p style="padding-left: 100px;">N. 89° 56' W., on a true line,</p> <p style="padding-left: 100px;">Bet. secs. 28 and 33.</p> <p>Descend through heavy cedar and pinon timber.</p>
2.00	<p>Bottom of ravine, 100 ft. deep, course N.E.</p> <p>Ascend.</p>
8.50	<p>Top of ridge, bears N.E. and S.W.</p> <p>Descend.</p>
23.75	<p>Bottom of ravine, 100 ft. deep, course N.E.</p> <p>Ascend.</p>
32.00	<p>Top of spur, projects N.E.</p> <p>Descend.</p>
40.01	<p>Set a sandstone 15x8x8 ins., 10 ins. in the ground, for ¼ sec. cor. marked,</p>

SUBDIVISIONS OF T.40 S.,R.4 W.,continued.

CHAINS

- $\frac{1}{4}$.on N.face,from which
A cedar 14 ins.diam.,bears N.21°W.,1.03 chs.dist.,
marked $\frac{1}{4}$ S.28 B.T.
A cedar 8 ins.diam.,bears S.5°E.,51 lks.dist.,
marked $\frac{1}{4}$ S.33 B.T.
- 65.00 Bottom of ravine,100 ft.deep,course N.E.
Ascend.
- 80.02 The cor.of secs.28-29-32 and 33.
Land rolling.
Soil,stony 3rd.rate.
Heavy cedar and pinon timber on 80.02 chs.
Heavily timbered on 80.02 chs.
- November 14,1902.
-
- November 15: At 8 a.m.,1.m.t.,I set off 37°16'N.on
lat.arc;18° 18' S.on decl.arc,and determine a true
meridian with the solar,at the cor.of secs,28-29-32 and
33.
Thence I run
N.0° 03'W.,bet.secs.28 and 29.
Ascend through heavy cedar and pinon timber.
- 31.50 Top of ridge,bears E.and W.
Descend.
- 38.25 Leave timber,bears E.and W.
Enter dense artemisia and scattering oak brush.
- 40.00 Set a cedar post,3 ft.long,4 ins.sq.,with marked
stone,24 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ S.
29 on W.,and 28 on E.face,from which
A cedar 4 ins.diam.,bears S.20°E.,1.80 chs.dist.,
marked $\frac{1}{4}$ S.28 B.T.
A cedar 14 ins.diam.,bears S.48°W.,2.00 chs.dist.,
marked $\frac{1}{4}$ S.29 B.T.
- 61.00 Bottom of ravine,75 ft.deep,course S.E.
Ascend.
- 75.00 Top of spur,projects S.W.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS	
	Descend.
80.00	<p>Set a sandstone, 16x8x4 ins., 11 ins. in the ground, for cor. of secs. 20-21-28 and 29, marked with 4 notches on E. and 2 notches on S. edges, dig pits, 18x18x12 ins., in each sec. 5½ ft. dist, and raise a mound of earth, 4 ft. base, 2 ft. high, W. of cor.</p> <p>Land, rolling.</p> <p>Soil, sandy loam, 2nd. rate.</p> <p>Heavy cedar and pinon timber on 38.25 chs.</p> <p>Heavily timbered or dense undergrowth on 80.00 chs.</p>
	S. 89° 56' E., on a random line, bet, secs. 21 and 28.
40.00	Set temp. ¼ sec. cor.
79.92	<p>Intersect N. and S. line, 7 lks. S. of the cor. of secs. 21-22-27 and 28.</p>
	Thence I run
	N. 89° 59' W., on a true line,
	Bet. secs. 21 and 28.
	Ascend over rocky land, through dense artemisia and scattering cedar and pinon timber.
5.00	Top of rocky spur, projects S.E.
	Descend.
11.00	Bottom of ravine, 100 ft. deep, course S.E.
	Thence along bottom of ravine.
19.00	Leave ravine, course from NW. to E.
	Ascend.
39.96	Top of spur, projects N.E.
	<p>Set a sandstone 16x10x4 ins., 11 ins. in the ground, for ¼ sec. cor., marked ¼ on N. face, from which</p>
	<p>A pinon 12 ins. diam., bears N. 19° E., 45 lks. dist., marked ¼ S. 21 B.T.</p>
	<p>A cedar 7 ins. diam., bears S. 37° E., 68 lks. dist., marked ¼ S. 28 B.T.</p>
	Descend.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS	
46.50	Hollow, 50 ft. deep, course N.E. Ascend.
59.00	Top of ridge, bears N.E. and S.W. Descend. Leave timber
79.92	The cor. of secs. 20-21-28 and 29. Land rolling. Soil, stony 3rd. rate. Timber, scattering cedar and pinon. Dense undergrowth on 79.92 chs. November 15: On account of a heavy snow storm obscured the sun at noon, I take no latitude observation.
	<hr/> <p>N. 0° 03' W., bet. secs. 20 and 21. Descend through dense artemisia and scattering oak brush.</p>
14.00	Hollow, 25 ft. deep, course S.W. Ascend.
31.00	Top of low ridge, bears N.W. and S.E. Enter scattering cedar and pinon timber. Descend.
40.00	Set a cedar post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ S. 20 on W. and 21 on E. face, from which A cedar 3 ins. diam., bears S. 76° W., 1.43 chs. dist., marked $\frac{1}{4}$ S. 20 B.T. A cedar 5 ins. diam., bears S. 18° E., 1.47 chs. dist., marked $\frac{1}{4}$ S. 21 B.T.
42.00	Begin ascent.
44.00	Road, bears N.E. and S.W.
52.50	Top of rocky spur, projects S.E. Descend.
57.00	Wash, 10x10 ft., in ravine, 100 ft. deep, course S.E. Ascend over broken land.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS 79.00	Top of ridge, bears N.E. and S.E. Enter heavy cedar and pinon timber, bears N.W. and S.E. Descend.
80.00	Set a sandstone 18x10x5 ins., 12 ins. in the ground, for cor. of secs. 16-17-20 and 21, marked with 3 notches on S. and 4 notches on E. edges, from which A pinon 3 ins. diam., bears N. 79° E., 18 lks. dist., marked T.40 S. R.4 W. S.16 B.T. A cedar 24 ins. diam., bears S. 73° E., 29 lks. dist., marked T.40 S. R.4 W. S.21 B.T. A pinon 8 ins. diam., bears S. 3° W., 98 lks. dist., marked T.40 S. R.4 W. S.20 B.T. A cedar 18 ins. diam., bears N. 78° W., 43 lks. dist., marked T.40 S. R.4 W. S.17 B.T. Land, rolling and broken. Soil, stony 3rd. rate. Heavy cedar and pinon on 1.00 ch. Dense undergrowth or heavily timbered on 80.00 chs.
	S. 89° 59' E., on a random line, bet. secs. 16 and 21.
40.00	Set temp. 1/4 sec. cor.
79.86	Intersect N. and S. line, 5 lks. S. of the cor. of secs. 15-16-21 and 22. Thence I run S. 89° 59' W., on a true line, Bet. secs. 16 and 21. Descend through heavy cedar and pinon timber.
7.25	Bottom of ravine, 100 ft. deep, course S.E. Ascend.
26.00	Top of ridge, bears N. and S. Descend.
39.50	Bottom of ravine, 150 ft. deep, course S.W. Ascend.
39.93	Set a sandstone 14x10x6 ins., 10 ins. in the ground, for

This corner was changed by the Deputy and marked as witness corner to the corner of sections 16, 17, 20 and 21, 100 lks. east (see letter from deputy dated Dec. 11, 1904, and the law letter C. dated Dec. 7, 1904 #3926.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

$\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which
A pinon 6 ins. diam., bears N. 26° W., 28 lks. dist.,
marked $\frac{1}{4}$ S. 16 B.T.

A pinon 7 ins. diam., bears S. 27° E., 29 lks. dist.,
marked $\frac{1}{4}$ S. 21 B.T.

44.00 Top of spur, projects S.
Descend.

55.80 Road, bears N.W. and S.E.

61.00 Ravine, 200 ft. deep, course S.E.
Ascend.

79.86 The cor. of secs. 16-17-20 and 21.

Land mountainous.

Soil, rocky 3rd. rate.

Heavy cedar and pinon timber on 79.86 chs.

Heavily timbered and mountainous land on 79.86 chs.

N. 0° 03' W., bet. secs. 16 and 17.

Descend through heavy cedar and pinon timber.

12.00 Leave heavy timber bears N.W. and S.E.

Enter dense artemisia, scrub oak, scattering cedar
and pinon timber.

35.00 Bottom of ravine, 200 ft. deep, course S.E.
Ascend.

40.00 Set a sandstone 15x10x8 ins., 10 ins. in the ground, for
 $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of
stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable

74.00 Enter heavy cedar and pinon timber, bears E. and W.

80.00 Top of spur, 500 ft. above $\frac{1}{4}$ sec. cor., projects S.E.
Set a sandstone 15x10x8 ins., 10 ins. in the ground, for
cor. of secs. 8-9-16 and 17, marked with 4 notches on
S. and E. edges, from which

A pinon 5 ins. diam., bears N. 29° E., 1.06 chs. dist.,
marked T. 40 S. R. 4 W. S. 9 B.T.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

A pinon 8 ins.diam., bears S.61°E., 51 lks.dist.,
marked T.40 S. R.4 W. S.16 B.T.

A cedar 6 ins.diam., bears S.43°W., 5 lks.dist.,
marked T.40 S. R.4 W. S.17 B.T.

A pinon 4 ins.diam., bears N.47°W., 72 lks.dist.,
marked T.40 S. R.4 W. S.8 B.T.

Land mountainous.

Soil, stony and clay 3rd, rate.

Heavy cedar and pinon timber on 18.00 chs.

Mountainous land on 80.00 chs.

November 15, 1902.

November 16: At 8 a.m., l.m.t., I set off 37° 21' N. on
lat.arc; 18° 33' S. on decl.arc, and determine a true mer-
idian with the solar, at the cor. of secs. 8-9-16 and
17.

Thence I run

N.89° 59'E., on a random line, bet.secs.

9 and 16!

40.00 Set temp. $\frac{1}{4}$ sec.cor.

79.90 Intersect N.and S.line, 3 lks, S.of the cor.of secs.
9-10-15 and 16.

Thence I run

S.89° 58'W., on a true line,

Bet.secs.9 and 16.

Over bottom land, through dense artemisia.

1.25 Wash, 10x10 ft.course S.

13.50 Deer Spring Wash, 15x15 ft., in broad canon 200 ft.deep,
course S.E.

14.50 Leave bottom, bears N.W.and SE.

Begin abrupt ascent through scattering cedar and pinon
timber.

39.95 Set a sandstone 24x10x8 ins., 18 ins.in the ground, for
 $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face, from which

A pinon 14 ins.diam., bears S.26°E., 40 lks.dist.,

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

- marked $\frac{1}{4}$ S.16 B.T.
 A pinon 6 ins.diam., bears N.88° E., 49 lks.dist.,
 marked $\frac{1}{4}$ S.9 B.T.
- 48.50 Top of ridge, bears N. and S., 300 ft. above canon.
 Begin abrupt descent.
- 64.90 Bottom of ravine, 300 ft. deep, course S.
 Ascend.
- 67.00 Descend.
- 72.00 Bottom of ravine, 75 ft. deep, course S.E.
 Begin abrupt ascent.
 Enter heavy cedar and pinon timber, bears N. and S.
- 79.90 The cor. of secs. 8-9-16 and 17.
 Land mountainous.
 Soil, bottoms, clay and stony, 2nd. and 3rd. rate.
 Heavy cedar and pinon timber on 8.00 chs.
 Mountainous land on 79.90 chs.
-
- N.0° 03' W., bet. secs. 8 and 9.
 Descend abruptly through heavy cedar and pinon timber.
- 2.70 Bottom of ravine, 100 ft. deep, course S.E.
 Begin abrupt ascent over broken land.
- 40.00 Set a sandstone 28x15x3 ins., 21 ins. in the ground, for
 $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
 A pinon 7 ins.diam., bears S.26° W., 25 lks.dist.,
 marked $\frac{1}{4}$ S.8 B.T.
 A pinon 6 ins.diam., bears N.10° E., 22 lks.dist.,
 marked $\frac{1}{4}$ S.9 B.T.
- 42.50 Top of ridge, 400 ft. above sec. cor., bears N.E. and S.W.
 Descend along the E. slope of a ridge, bearing N. and S.
 over broken land.
- 80.00 Set a sandstone 18x7x7 ins., 12 ins. in the ground, for
 cor. of secs. 4-5-8 and 9, marked with 5 notches on S.
 and 4 notches on E. edges, from which
 A pinon 4 ins.diam., bears N.60° E., 21 lks.dist.,

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS	
	marked T.40 S. R.4 W. S.4 B.T.
	A cedar 8 ins.diam., bears S.33°E., 3 lks.dist., marked T.40 S. R.4 W. S.9 B.T.
	A cedar 7 ins.diam., bears S.42°W., 27 lks.dist., marked T.40 S. R.4 W. S.8 B.T.
	A pinon 7 ins.diam., bears N.32°W., 28 lks.dist., marked T.40 S. R.4 W. S.5 B.T.
	Land mountainous.
	Soil, stony 3rd.rate.
	Heavy cedar and pinon on 80.00 chs.
	Heavily timbered on 80.00 chs.
	November 16: At this cor.I set off 338'S.on decl.arc; and at 11h.45m., a.m., l.m.t., observe the sun on the meridian, the resulting lat.is 37° 22' N.
	—————
	N.89° 58'E., on a random line, bet.secs.4 and 9.
40.00	Set temp. $\frac{1}{4}$ sec.cor.
79.98	Intersect N.and S.line, 5 lks.S.of the cor.of secs. 3-4-9 and 10.
	Thence I run
	S.89° 56'W., on a true line,
	Ret.secs.4 and 9.
	Over rocky land, ascend through heavy cedar and pinon timber.
39.99	Set a sandstone 15x12x12 ins., 10 ins.in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$.on N. face, from which
	A cedar 10 ins.diam., bears N.67°E., 46 lks.dist., marked $\frac{1}{4}$ S.4 B.T.
	A cedar 9 ins.diam., bears S.57°E., 28 lks.dist., marked $\frac{1}{4}$ S.9 B.T.
45.00	Top of ridge, bears N.W.and S.E.
	Descend over broken land.
79.00	Bottom of ravine, 150 ft.deep, course S.E.
	Ascend.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

79.98 The cor. of secs. 4-5-8 and 9.

Land broken.

Soil, stony 3rd. rate.

Heavy cedar and pinon timber on 79.98 chs.

Heavily timbered on 79.98 chs.

N. 0° 03' W., on a random line, bet. secs. 4 and 5.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.08 Intersect N. Bdy. of Tp. 3 lks. E. of the cor. of secs. 4-5-32 and 33, heretofore described.

Thence I run

S. 0° 04' E., on a true line,

Bet. secs. 4 and 5.

Ascend through heavy cedar and pinon timber.

7.50 Top of spur, projects S.E.

Descend.

10.00 Hollow, 50 ft. deep, course S.E.

Ascend.

40.08 Set a sandstone, 16x12x5 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which

A cedar 12 ins. diam., bears N. 84° E. 1.60 chs. dist., marked $\frac{1}{4}$ S. 4 B.T.

A pinon 14 ins. diam., bears S. 82° W. 2.08 chs. dist., marked $\frac{1}{4}$ S. 5 B.T.

49.00 Top of ridge, bears E. and W.

Descend.

78.90 Bottom of ravine, 150 ft. deep, course S.E.

Ascend.

80.08 The cor. of secs. 4-5-8 and 9.

Land rolling.

Soil, stony 3rd. rate.

Heavy cedar and pinon on 80.08 chs.

Heavily timbered on 80.08 chs.

November 16, 1902.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

November 17: At 8 a.m., l.m.t., I set off $37^{\circ}17'N$. on lat. arc; $18^{\circ}48'S$. on decl. arc, and determine a true meridian with the solar, at the Stan. Cor. of secs. 31 and 32, on the Eighth Standard Parallel South, heretofore described.

Thence I run

$N.0^{\circ}03'W.$, bet. secs. 31 and 32.

Over rolling land, descend through dense artemisia and scattering oak brush.

5.00 Enter scattering cedar and pinon timber.

24.00 Enter heavy cedar and pinon timber, bears N.E. and S.W.

35.00 Leave timber, bears E. and W.

40.00 Set a cedar post, 3 ft. long, 4 ins. sq., with marked stone 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ S. 31 on W. and 32 on E. face, dig pits, 18x18x12 ins., N. and S. of post, 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

73.50 Hollow, 75 ft. deep, course E.

Ascend.

80.00 Set a cedar post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground, for cor. of secs. 29-30-31 and 32, marked

T.40 S. S. 29 on N.E.,

R.4 W. S. 32 on S.E.,

S. 31 On S.W. and

S. 30 on N.W. face, with 1 notch on S. and 5 notches on E. edges, dig pits, 18x18x12 ins. in each sec., $5\frac{1}{2}$ ft.

dist.; and raise a mound of earth 4 ft. base, 2 ft. high, W. of cor.

Land rolling.

Soil, sandy 3rd. rate.

Heavy cedar and pinon timber on 11.00 chs.

Heavily timbered or dense undergrowth on 80.00 chs.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS	
	East, on a random line, bet. secs. 29 and 32.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.02	Intersect N. and S. line, 3 lks. N. of the cor. of secs. 28-29-32 and 33.
	Thence I run N. $89^{\circ}59'$ W. on a true line Bet. secs. 29 and 32.
	Ascend through heavy cedar and pinon timber.
10.50	Top of spur, projects S. Descend.
27.00	Bottom of ravine, 100 ft. deep, course S.E. Ascend.
35.50	Top of spur, projects N. Descend.
	Leave heavy timber, bears N. and S. Enter dense artemisia, scattering oak brush, cedar and pinon timber.
40.01	Set a cedar post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ S. 29 on N., and 32 on S. face, from which A cedar 8 ins. diam., bears S. 56° W., 2 lks. dist., marked $\frac{1}{4}$ S. 32 B.T. A pinon 8 ins. diam., bears N. 18° E., 169 chs. dist., marked $\frac{1}{4}$ S. 29 B.T.
46.00	Same ravine, 100 ft. deep, course N.E. Leave timber. Ascend.
80.02	The cor. of secs. 29-30-31 and 32. Land rolling. Soil, sandy 3rd. rate. Heavy cedar and pinon timber on 35.50 chs. Heavily timbered or dense undergrowth on 80.02 chs.

SUBDIVISIONS OF T.40 S., R.4 W., continued

CHAINS	
	West, on a random line, bet. secs. 30 and 31.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
135.71	Intersect W. Bdy. of Tp., 4 lks. N. of the cor. of secs.
	28-30-31 and 33, heretofore described.
	Thence I run N. 89° 59' E., on a true line,
	Bet. secs. 30 and 31.
	Ascend through dense artemisia and scattering cedar
	and pinon timber.
7.00	Enter heavy cedar and pinon timber, bearing N.E. and S.W.
	Begin ascent of broken clay hills, bearing N.E. and S.W.
55.00	Top of clay spur, projecting N.W.
	Descend.
75.00	Bottom of ravine, 100 ft. deep, course N.W.
	Ascend.
88.50	Top of ridge, 250 ft. above sec. cor., bears N.E. and S.W.
	Leave heavy timber, bears N.E. and S.W.
	Enter dense artemisia, scattering oak brush, cedar and
	pinon timber.
	Descend over rolling land.
95.71	Set a cedar post, 3 ft. long, 4 ins. sq., with marked
	stone, 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ S.
	30 on N., and 31 on S. face, from which
	A cedar 5 ins. diam., bears S. 61° W., 1.08 chs. dist.,
	marked $\frac{1}{4}$ S. 31 B.T.
	A cedar 4 ins. diam., bears N. 11° E., 1.72 chs. dist.,
	marked $\frac{1}{4}$ S. 30 B.T.
126.00	Leave timber.
135.71	The cor. of secs. 29-30-31 and 32.
	Land rolling and broken.
	Soil, clay and sandy 3rd. rate.
	Heavy cedar and pinon timber on 81.50 chs.
	Heavily timbered or dense undergrowth on 135.71 chs.
	November 17: At this cor. I set off 18° 53' S. on decl.
	arc, and at 11h. 45m., a.m., 1.m.t., observe the sun on
	the meridian, the resulting lat. is 37° 18' N.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

N.0° 03'W., bet. secs. 29 and 30.

Ascend through dense artemisia and scattering oak brush.

6.00 Top of ridge, bears E. and W.

Descend over rolling land.

32.00 Hollow, 50 ft. deep, course E.

Ascend.

40.00 Set a sandstone 12x10x6 ins., 8 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, dig pits, 18x18x12 ins., N. and S. of stone, 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

54.00 Enter scattering cedar and pinon timber.

61.50 Top of spur, projects S.E.

Descend.

68.00 Ravine, 100 ft. deep, course S.E.

Ascend.

73.50 Top of ridge, bears N.W. and S.E.

Descend.

- 80.00 Set a sandstone 18x8x3 ins., 12 ins. in the ground, for cor. of secs. 19-20-29 and 30, marked with 2 notches on S. and 5 notches on E. edges, from which

A cedar 10 ins. diam., bears N.46°W., 2.92 chs. dist., marked T.40 S. R.4 W. S.19 B.T.

No other trees within limits, and raise mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Land rolling.

Soil, sandy 3rd. rate.

Timber, scattering cedar and pinon.

Dense undergrowth on 80.00 chs.

SUBDIVISIONS OF T.40 S.;R.4 W.,continued.

- CHAINS
- S.89° 59'E., on a random line, bet. secs.20 and 29.
 - 40.00 Set temp. $\frac{1}{4}$ sec.cor.
 - 80.02 Intersect N.and S.line, 3 lks.S.of the cor.of secs. 20-21-28 and 29.
 - Thence I run
 - West, on a true line,
 - Bet.secs.20 and 29.
 - Descend through dense artemisia and scattering oak brush.
 - 9.50 Bottom of ravine, 100 ft.deep, course S.
 - Ascend.
 - Enter scattering cedar and pinon timber.
 - 22.00 Top of spur, projects N.
 - Descend.
 - 36.50 Bottom of ravine, 100 ft.deep, course N.E.
 - Ascend.
 - 39.00 Top of spur, projects S.
 - Descend.
 - 40.01 Set a sandstone 15x10x8 ins., 10 ins.in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on N.face, from which
 - A cedar 8 ins.diam., bears N.16°W., 26 lks.dist., marked $\frac{1}{4}$ S.20 B.T.
 - A cedar 4 ins.diam., bears S.83°E., 1.16 chs.dist., marked $\frac{1}{4}$ S.29 B.T.
 - 41.25 Bottom of ravine, 100 ft.deep, course S.E.
 - Ascend over rolling land.
 - 80.02 The cor.of secs.19-20-29 and 30.
 - Land rolling.
 - Soil, sandy 3rd.rate.
 - Timber, scattering cedar and pinon .
 - Dense undergrowth on 80.02 chs.
-
- S.89° 59'W!, on a random line, bet.secs.19 and 30.
 - 40.00 Set temp. $\frac{1}{4}$ sec.cor.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS	
135.60	Intersect W.Bdy.of Tp.,24 lks.S.of the cor.of secs. 19-21-28 and 30,heretofore described. Thence I run S.89° 55'E.,on a true line, Bet.secs.19 and 30. Descend through heavy cedar and pinon timber.
1.50m	Bottom of ravine 100 ft.deep,course S.E. Ascend.
5.50	Top of spur,projects S.E. Descend.Leave timber,bears N.and S.
14.00	Mouth of ravine,from N.W.,Enter dense artemisia. Ascend.
19.50	Top of spur,projects S.E. Descend.
25.00	Enter bottom land,bears N.and S. Descend gradually.
62.00	Wash,10x10 ft.,course S. Begin gradual ascent.
79.00	Road,from Skumpah to Meadows,bears N.E.and S.W.
89.00	Leave bottom land,bears N.W.and S.E. Ascend.
95.60	Set a sandstone 24x10x4 ins.,18 ins.in the ground,for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on N.face,and raise a mound of stone 2 ft.base,1 $\frac{1}{2}$ ft.high,N.of cor. Pits impracticable.
122.50	Top of ridge,bears N.and S. Descend.
135.60	The cor.of secs.19-20-29 and 30. Land rolling and bottoms. Soil,sandy loam and stony 2nd and 3rd.rate. Heavy cedar and pinon timber on 5.50 chs. Dense undergrowth or heavily timbered on 135.60 chs.

November 17.1902.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS	
	November 18: AT 8 a.m., l.m.t., I set off $37^{\circ} 19' N$. on lat. arc; $19^{\circ} 02' S$. on decl. arc, and determine a true meridian with the solar, at the cor. of secs. 19-20-29 and 30.
	Thence I run
	N. $0^{\circ} 03' W$., bet. secs. 19 and 20.
	Descend through dense artemisia and scattering oak brush.
12.75	Hollow, 50 ft. deep, course S.E.
	Ascend.
19.50	Enter scattering cedar and pinon timber.
24.00	Top of spur, projects W.
	Descend.
32.40	Road, bears N.E. and S.W.
40.00	Set a cedar post, 3 ft. long, 4 ins. sq, with marked stone
	24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ S. 19 on
	W. and 20 on E. faces, from which
	A cedar 8 ins. diam., bears N. $20^{\circ} E$., 1.74 chs. dist.,
	marked $\frac{1}{4}$ S. 20 B.T.
	A cedar 6 ins. diam., bears N. $36^{\circ} W$., 82 lks. dist.,
	marked $\frac{1}{4}$ S. 19 B.T.
48.00	Hollow, 50 ft. deep, course S.W.
	Ascend. Leave timber.
80.00	Set a cedar post, 3 ft. long, 4 ins. sq., with marked
	stone, 24 ins. in the ground, for cor. of secs.
	17-18-19 and 20, marked with 3 notches on S. and 5 not-
	ches on E. edges and with
	T. 40 S. S. 17 on N.E.,
	R. 4 W. S. 20 on S.E.,
	S. 19 on S.W. and
	S. 18 on N.W. face, dig pits 18x18x12 ins. in each sec.
	$5\frac{1}{2}$ ft. dist., and raise a mound of earth, 4 ft. base, 2 ft.
	high, W. of cor.
	Land rolling.
	Soil, sandy and stony 3rd. rate

SUBDIVISIONS OF T.40 S.,R.4 W.,continued.

CHAINS

Timber, scattering cedar and pinon on 28.50 chs.
Dense undergrowth on 80.00 chs.

East, on a random line, bet. secs. 17 and 20.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.32 Intersect N. and S. line, 7 lks. N! of the cor. of secs. 16-17
20 and 21.

Thence I run

N. 89° 57' W., on a true line,

Bet. secs. 17 and 20.

Ascend through heavy cedar and pinon timber.

1.35 Top of ridge, bears N.W. and S.E.

Descend, over clay spurs, projecting S. from ridge.

24.50 Wash, 15x15 ft., in bottom of ravine, 100 ft. deep, course
S.E.

Ascend.

30.50 Top of low ridge, bears N.W. and S.E.

Descend.

39.00 Leave timber, bears N.W. and S.E.

Enter dense artemisia and scattering oak brush.

40.16 Set a cedar post, 3 ft. long, 4 ins. sq., with marked
stone, 24 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ S.
17 on N. and 20 on S. face, from which

A cedar 6 ins. diam., bears S. 69° E., 1.59 chs. dist.,
marked $\frac{1}{4}$ S. 20 B.T.

A cedar 5 ins. diam., bears N. 49° E., 1.41 chs. dist.,
marked $\frac{1}{4}$ S. 17 B.T.

56.00 Head of hollow, course S.W.

Ascend over rolling land.

80.32 The cor. of secs. 17-18-19 and 20.

Land rolling and broken.

Soil, clay and stony 3rd. rate.

Heavy cedar and pinon timber on 39.00 chs.

Heavily timbered or dense undergrowth on 80.32 chs.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS	
	N.89° 55'W., on a random line, bet. secs. 18 and 19.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
135.56	Intersect W. Bdy. of Tp., 8 lks. N. of the cor. of secs.
	16-18-19 and 21, heretofore described.
	Thence I run
	S.89° 57'E., on a true line,
	Bet. secs. 18 and 19.
	Ascend through heavy cedar and pinon timber.
5.50	Top of ridge, bears N. and S.
	Descend over broken clay spurs.
58.00	Bottom of ravine, 400 ft. below top of ridge, course
	S. E.
	Ascend over broken clay spurs.
86.00	Leave heavy timber, bears N. E. and S. W.
	Enter scattering timber.
95.56	Set a sandstone 18x12x4 ins., 12 ins. in the ground, for
	$\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which
	A cedar 4 ins. diam., bears N. 28° W., 67 lks. dist.,
	marked $\frac{1}{4}$ S. 18 B. T.
	A cedar 6 ins. diam., bears S. 42° W., 2.22 chs. dist.,
	marked $\frac{1}{4}$ S. 19 B. T.
121.00	Top of ridge, 400 ft. above bottom of ravine,
	bears N. and S.
	Leave timber, enter dense artemisia and scattering
	oak brush.
	Descend.
134.40	Road, from Skumpah to Meadows, bears N. and S.
135.56	The cor. of secs. 17-18-19 and 20.
	Land mountainous.
	Soil, clay 3rd. rate.
	Heavy cedar and pinon timber on 86.00 chs.
	Mountainous land on 135.56 chs.
	November 18: At this cor. I set off 19° 07' S. on decl. arc;
	and at 11h. 45m. a.m., l.m.t., observe the sun on the
	meridian, the resulting lat. is 37° 20' N.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

N.0° 03'W., bet. secs. 17 and 18.

Over rolling land, ascend through dense artemisia and scattering oak brush.

- 6.40 Road, from Skumpah to Meadows, bears N.E and S.W.
Enter scattering cedar and pinon timber.
- 9.75 Top of ridge, bears E. and W.
Descend.
- 23.00 Bottom of ravine, 100 ft. deep, course E.
Ascend.
- 40.00 Set a sandstone 15x6x6 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
A cedar 5 ins. diam., bears S.27°E., 61 lks. dist., marked $\frac{1}{4}$ S.17 B.T.
A cedar 6 ins. diam., bears S.78°W., 12 lks. dist., marked $\frac{1}{4}$ S.18 B.T.
- 48.00 Top of ridge, bears N.W. and S.E.
Descend.
- 60.75 Bottom of ravine, 100 ft. deep, course S.E.
Ascend.
- 80.00 Top of spur, projects S.E.
Set a sandstone 18x10x10 ins., 12 ins. in the ground, for cor. of secs. 7-8-17 and 18, marked with 4 notches on S. and 5 notches on E. edges, from which
A cedar 8 ins. diam., bears N.84°E., 57 lks. dist., marked T.40 S. R.4 W. S.8 B.T.
A cedar 12 ins. diam., bears S.86°E., 55 lks. dist., marked T.40 S. R.4 W. S.17 B.T.
A pinon 14 ins. diam., bears S.52°W., 30 lks. dist., marked T.40 S. R.4 W. S.18 B.T.
A cedar 10 ins. diam., bears N.65°W., 70 lks. dist., marked T.40 S. R.4 W. S.7 B.T.
Land rolling.
Soil, stony 3rd. rate.
Timber, scattering cedar and pinon.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS	
	Dense undergrowth on 80.00 chs.

	S.89° 57'E., on a random line, bet. secs. 8 and 17.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.20	Intersect N. and S. line, 5 lks. S. of the cor. of secs. 8-9-16 and 17.
	Thence I run
	N.89° 59'W., on a true line, Bet. secs. 8 and 17.
	Descend through scattering cedar and pinon timber, and dense artemisia.
13.00	Head of ravine, course S. Ascend.
16.00	Top of spur, projects S. Descend.
40.10	Set a sandstone 14x12x4 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which A pinon 14 ins. diam., bears N.10°E., 32 lks. dist., marked $\frac{1}{4}$ S. 8 B.T. A pinon 3 ins. diam., bears S.15°W., 42 lks. dist., marked $\frac{1}{4}$ S. 17 B.T.
47.00	Road, from Skumpah to Meadows, bears N. and S., in bottom of ravine, 200 ft. deep, course S. Ascend.
61.00	Top of spur, projects S. Descend.
74.00	Ravine, 100 ft. deep, course S.E. Ascend.
80.20	Top of spur, projects S.E. The cor. of secs. 7-8-17 and 18. Land mountainous. Soil, stony 3rd. rate. Timber, scattering cedar and pinon. Mountainous land on 80.20 chs.

SUBDIVISIONS OF T.40 S.,R.4 W.,continued.

CHAINS

N.89° 57'W.,on a random line,bet.secs.7 and 18.

40.00 Set temp.¼ sec.cor.

135.47 Intersect W.Bdy.of Tp.,4 lks.N.of the cor.of secs. 7-8-16 and 18,heretofore described.

Thence I run

S.89° 58'E.,on a true line,
Bet.secs.7 and 18.

Descend through heavy cedar and pinon timber.

11.00 Bottom of ravine,100 ft.deep,course N.W.

Ascend over broken land.

75.00 Top of ridge,400 ft.above bottom of ravine,bears N. and S.

Descend.

86.00 Head of ravine,course S.E.

Ascend.

95.47 Set a sandstone,15x10x10 ins.,10 ins.in the ground, for ¼ sec.cor.,marked ¼ on N.face,from which A cedar 6 ins.diam.,bears N.43°E.,15 lks.dist., marked ¼ S.7 B.T.

A cedar 8 ins.diam.,bears S.64°E.,82 lks.dist., marked ¼ S.18 B.T.

100.00 Top of ridge,bears S.E.and N.W.

Descend.

114.00 Bottom of ravine,75 ft.deep,course S.E.

Ascend

135.47 Top of spur,projects S.E.

The cor.of secs.7-8-17 and 18.

Land mountainous.

Soil,stonny 3rd.rate.

Heavy cedar and pinon on 135.47 chs.

Mountainous land and heavily timbered on 135.47 chs.

November 18,1902.

SUBDIVISIONS OF T.40 S. R.4 W. continued.

CHAINS	
	<p>November 19: At 8 a.m., l.m.t., I set off $37^{\circ} 21' N$. on lat. arc; $19^{\circ} 17' S$. on decl. arc; and determine a true meridian with the solar, at the cor. of secs. 7-8-17 and 18.</p>
	<p>Thence I run</p>
	<p style="padding-left: 40px;">$N. 0^{\circ} 03' W.$, bet. secs. 7 and 8.</p>
	<p>Descend through dense artemisia and scattering cedar and pinon timber.</p>
31.00	<p>Bottom of ravine, 100 ft. deep, course S.E.</p>
	<p>Enter heavy cedar and pinon timber, bears N.W. and S.E.</p>
	<p>Ascend.</p>
40.00	<p>Set a sandstone $14 \times 8 \times 4$ ins., 10 ins. in the ground,</p>
	<p>for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which</p>
	<p>A cedar 8 ins. diam., bears $S. 88^{\circ} E.$, 1.06 chs. dist.,</p>
	<p>marked $\frac{1}{4}$ S. 8 B.T.</p>
	<p>A cedar 10 ins. diam., bears $N. 29^{\circ} W.$, 1.75 chs. dist.,</p>
	<p>marked $\frac{1}{4}$ S. 7 B.T.</p>
45.00	<p>Top of ridge, bears N.W. and S.E.</p>
	<p>Descend.</p>
70.00	<p>Bottom of ravine, 100 ft. deep, course S.E.</p>
	<p>Ascend.</p>
77.00	<p>Top of spur, projects S.E.</p>
	<p>Descend.</p>
80.00	<p>Set a sandstone $15 \times 12 \times 4$ ins., 10 ins. in the ground,</p>
	<p>for cor. of secs. 5-6-7 and 8, marked with 5 notches on</p>
	<p>S. and E. edges, from which</p>
	<p>A pinon 5 ins. diam., bears $N. 74^{\circ} E.$, 35 lks. dist.,</p>
	<p>marked T.40 S. R.4 W. S.5 B.T.</p>
	<p>A cedar 5 ins. diam., bears $S. 52^{\circ} E.$, 29 lks. dist.,</p>
	<p>marked T.40 S. R.4 W. S.8 B.T.</p>
	<p>A cedar 8 ins. diam., bears $S. 7^{\circ} W.$, 38 lks. dist.,</p>
	<p>marked T.40 S. R.4 W. S.7 B.T.</p>
	<p>A cedar 5 ins. diam., bears $N. 37^{\circ} W.$, 19 lks. dist.,</p>
	<p>marked T.40 S. R.4 W. S.6 B.T.</p>
	<p>Land broken.</p>

SUBDIVISIONS OF T.40 S.,R.4 W.,continued.

CHAINS

Soil, stony 3rd. rate.

Heavy cedar and pinon timber on 49.00 chs.

Heavily timbered or dense undergrowth on 80.00 chs.

S.89° 59'E., on a random line, bet. secs. 5 and 8.

40.00 Set temp. 1/4 sec. cor.

80.08 Intersect N. and S. line, 5 lks, S. of the cor. of secs. 4-5-8 and 9.

Thence I run.

S.89° 59'W., on a true line,

Bet. secs. 5 and 8.

Ascend through heavy cedar and pinon timber.

3.00 Top of ridge, bears N. and S.

Descend.

25.75 Bottom of ravine, 100 ft. deep, course S.W.

Ascend.

30.00 Top of spur, projects S.W.

Descend.

36.00 Bottom of ravine, 100 ft. deep, course S.

Ascend.

40.04 Set a sandstone 12x12x8 ins., 8 ins. in the ground, for 1/4 sec. cor., marked 1/4 on N. face, from which A pinon 4 ins. diam., bears S.58°E., 1.86 chs. dist., marked 1/4 S.8 B.T.

A cedar 10 ins. diam., bears N.84°E., 37 lks. dist., marked 1/4 S.5 B.T.

46.25 Top of spur projects S.W. Descend.

55.25 Road, from Skumpah to Meadows, bears N. and S. in bottom of ravine 200 ft. deep, course S.

Ascend.

80.08 The cor. of secs. 5-6-7 and 8.

Land mountainous.

Soil, stony 3rd. rate.

Heavy cedar and pinon timber on 80.08 chs.

Mountainous land or heavily timbered on 80.08 chs.

November 19: At this cor. I set off 19° 22'S. on decl.

SUBDIVISIONS OF T.40 S., R.4 W., continued.

CHAINS

arc, and at 11h.45m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ} 22' N$.

N. $29^{\circ} 58' W$., on a random line, bet. secs. 6 and 7.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

135.40 Intersect W. Bdy. of Tp., 4 lks. N. of the cor. of secs. 4-6-7- and 9., heretofore described.

Thence I run

S. $89^{\circ} 59' E$., on a true line,

bet. secs. 6 and 7.

Ascend through heavy cedar and pinon timber.

19.00 Top of ridge, bears N. and S.

Descend.

38.50 Bottom of ravine, 300 ft. below top of ridge, course S. W.

Ascend.

81.00 Top of ridge, bears N. and S.

Leave heavy timber, bears N. and S.

Enter dense artemisia and scattering oak brush, cedar and pinon timber. Descend.

95.40 Set a sandstone $12 \times 9 \times 5$ ins., 8 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which

A cedar 6 ins. diam., bears North, 75 lks. dist., marked $\frac{1}{4}$ S. 6 B. T.

No other trees within limits, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

Pits impracticable.

117.00 Bottom of ravine, 100 ft. deep, course S. E.

Ascend.

129.00 Top of ridge, bears N. W. and S. E.

Descend.

135.40 The cor. of secs. 5-6-7 and 8.

Land mountainous.

Soil, stony 3rd. rate

Subdivisions of T.40 S., R.4 W., continued.

CHAINS

- Heavy cedar and pinon timber on 81.00 chs.
 Mountainous land, heavily timbered or dense
 undergrowth on 135.40 chs.
-
- N.0° 03' W., on a random line, bet. secs. 5 and 6.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.07 Intersect N. Bdy. of Tp., 5 lks. E. of the cor. of secs.
 5-6-31 and 32, heretofore described.
- Thence I run
 S.0° 05' E., on a true line,
 Bet. secs. 5 and 6.
- Descend through dense artemisia and scattering oak
 brush.
- .50 Road, from Skumpah to Meadows, bears N.W. and S.E. in
 bottom of ravine, 200 ft. deep, course S.E.
 Ascend.
- 16.00 Enter heavy cedar and pinon timber, bears N.W. and S.E.
- 21.50 Top of spur, projects S.E.
 Descend.
- 31.50 Bottom of ravine, 100 ft. deep, course S.E.
 Ascend.
- 40.07 Set a quartzite stone 15x12x4 ins., 10 ins. in the
 ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face,
 from which
 A pinon 7 ins. diam., bears S.15° W., 70 lks. dist.,
 marked $\frac{1}{4}$ S.6 B.T.
 A cedar 6 ins. diam., bears S.79° E., 54 lks. dist.,
 marked $\frac{1}{4}$ S.5 B.T.
- 51.00 Top of spur, projects S.E.
 Descend.
- 56.50 Bottom of ravine, 150 ft. deep, course S.E.
 Ascend.
- 71.00 Top of spur, projects S.E.
 Descend.

SUBDIVISIONS OF T.40 S.,R.4 W.,concluded.

CHAINS

- 79.00 Bottom of ravine,75 ft.deep,course E.
Ascend.
- 80.07 The cor.of secs.5-6-7 and 8.
Land broken.
Soil, stony 3rd.rate.
Heavy cedar and pinon timber on 64.00 chs.
Heavily timbered or dense undergrowth on 80.07 chs.
- November 19:,1902.

GENERAL DESCRIPTION OF T.40 S.,R.4 W.

This township is situated on a slope,sloping south from thePaunsaugunt Plateau,which is about 2 miles N. of the north boundary of this township.

The township is rolling in the S.W.portion and mountainous on the balance,and is generally covered with a heavy growth of cedar and pinon timber,or dense undergrowth and nutritious grasses,making this an excellent stock range.

The only water in this township,is a seepage along Deer Spring Wash,in secs.14-15 and 23.

The soil,is generally stony or clay,3rd.rate,with the exception of several bottoms,where the soil is a rich sandy loam,capable of producing crops without irrigation.

William T.Stewart,Taylor Crosby and George Adams, who made application for a survey of this township, are located at the Meadows,about 3 miles north of this township,in T.39S.R.4 W.

They use this township for a cattle range.

The only settler in this township is Henry Clark in S.W. $\frac{1}{4}$ sec.14.

No land under cultivation.

GENERAL DESCRIPTION OF T.40 S.,R.4 W.,concluded.

Value of improvements \$150.00

There are no indications of mineral found in this township.

For table of Latitudes and departures, see
Boundaries of T.40 S.,R.4 W.

Harvey L. Geist

U.S. DEPUTY SURVEYOR.

There being no notary public or other officer authorized to administer oaths within reasonable distance at the beginning or ending of this survey, in order to save time and expense, I administer the preliminary and final oaths myself.

Harvey L. Geist

U.S. DEPUTY SURVEYOR.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Harvey D. Heist

United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of

the Subdivisions of T.40 S., R.2 and 4 W. of the Salt Lake Base and Meridian, Utah. Showing the respective capacities in which they acted:

- William Walquist Chairman.
- George Wilson Chairman.
- John Kitchen Moundman.
- Carl V. Woolley Moundman.
- James Potter Arman.
- Arman.
- Oley Sorenson Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Harvey D. Heist

United States Deputy Surveyor, in surveying all those parts or portions of the

Subdivisions of T.40 S., R.2 and 4 W.

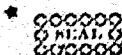
of the Salt

Lake Base and meridian, in the state of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah.

- William Walquist Chairman.
- George Wilson Chairman.
- John Kitchen Moundman.
- Carl V. Woolley Moundman.
- James Potter Arman.
- Arman.
- Oley Sorenson Flagman.

Subscribed and sworn to before me this 19th day of October, 1902, 189

Harvey D. Heist
U.S. Deputy Surveyor



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Harvey D. Reist, United States Deputy Surveyor
solemnly swear that, in pursuance of a contract received from Edward H. Anderson
United States Surveyor General for Utah, bearing date of
12th day of February, 1902, 189 , I have well, faithfully, and truly, in my
proper person, and in strict conformity with the instructions furnished by the United States Surveyor
General for Utah, the Manual of Surveying Instructions, and the laws of
United States, surveyed all those parts or portions of
the subdivisions of T. 40 S., R. 2 and 4 W.

of the Salt Lake Basin
and neighboring in the state of Utah, which are represented in
foregoing field notes ^{in books 24 & 10} having been surveyed by me, and under my direction; and I do further solemnly
swear that all the corners of said survey have been established and perpetuated in strict accordance
with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor
General for Utah, and in the specific manner described in the field notes, and
the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer
the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846,

Harvey D. Reist
United States Deputy Surveyor

Subscribed by said Harvey D. Reist, and sworn to before me }
this 26th day of March, 1902, 189

Edward H. Anderson
Surveyor-General for Utah



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Salt Lake City, Utah, February 26, 1902

The foregoing field notes of the survey of the subdivisions of T. 40 S., R. 2 and 4 W. of the Salt Lake Basin & Neighboring, Utah
of Harvey D. Reist, of the South Range West of the Salt Lake Basin & Neighboring, Utah

presented by Harvey D. Reist
under his contract No. 251, dated February 12, 1902, 189 , having
critically examined, and the necessary corrections and explanations made, the said field notes, and
approve they describe, are hereby approved.

Edward H. Anderson
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in
has been correctly copied from the original notes on file in this office.

United States Surveyor General

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BOOK A-297

FIELD NOTES

OF THE SURVEY OF THE

G-U-I-D-E N-E-R-I-D-I-A-N

through

Township No. 40 South,

between

Ranges No. 12 and 13 West,

of the Salt Lake Base and Meridian,

in the state of Utah,

AS SURVEYED BY

Harvey D. Hoist, United States Deputy Surveyor,

Under his Contract No. 251, dated February 12, 1901.

Survey commenced November 25, 1902, 189

Survey completed November 28, 1902, 189

Q. 711 - High 6-11-80

NAMES AND DUTIES OF ASSISTANTS.

William Walquist

Chainman

Frank Bringhurst

"

Earl V. Woolley

"

Edwin Higbee

"

Frank Duffin

Moundman

John Kitchen

Axman

Herbert Riggs

Flagman

Volume

#

R0297

BOOK A-297

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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

We, William Walquist, Frank Bringham, Earl V. Woolley and Edwin Higbee do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of the Guide Meridian, through T. 40 S., bet. Rs. 12 and 13 W. of the Salt Lake Base and Meridian, Utah.

William Walquist, Chainman
Frank Bringham, Chainman
Earl V. Woolley, Chainman
Edwin Higbee, Chainman

Subscribed and sworn to before me this 25th. day of November, 1902, 189

Harvey L. Geist
U.S. Deputy Surveyor



I, Frank Duffin do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us to the best of our skill and ability, in the survey of the Guide Meridian through T. 40 S., bet. Rs. 12 and 13 W. of the Salt Lake Base and Meridian, Utah.

Frank Duffin, Moundman

Subscribed and sworn to before me this 25th. day of November, 1902, 189

Harvey L. Geist
U.S. Deputy Surveyor



I, John Kitchen do solemnly swear that we will well and truly perform the duties of axman in the establishment of corners and other duties, according to instructions given us to the best of our skill and ability, in the survey of the Guide Meridian, through T. 40 S., bet. Rs. 12 and 13 W. of the Salt Lake Base and Meridian, Utah.

John Kitchen, Axman

Subscribed and sworn to before me this 25th. day of November, 1902, 189

Harvey L. Geist
U.S. Deputy Surveyor



I, Herbert Riggs do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of the Guide Meridian, through T. 40 S., bet. Rs. 12 and 13 W. of the Salt Lake Base and Meridian, Utah.

Herbert Riggs, Flagman

Subscribed and sworn to before me this 25th. day of November, 1902, 189

Harvey L. Geist
U.S. Deputy Surveyor



Guide Meridian, through Tps. 40 S., between Rs. 12 and 13 W.

Survey commenced November 25, 1902, and executed with a W. and L. E. Gurley light mountain transit, No. --, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah, May 26, 1902.

I examine the adjustments of the transit, and correct the level and collimation errors; then, to test the solar apparatus, by comparing its indications, resulting from solar observations made during a.m. and p.m. hours with a meridian determined by observations on Polaris, I proceed as follows:

At the Standard Corner to Tp. 40 S. Rs. 12 and 13 W., in approximate Latitude $37^{\circ} 17' 13''$ N., Longitude $113^{\circ} 12' 11''$ W.; I set off $37^{\circ} 17'$ N. on the lat. arc; $20^{\circ} 54'$ S., on the decl. arc; and at 4 p.m., l.m.t., determine with the solar a true meridian and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of my station.

November 25, 1902.

November 26: At 2h. 58m., a.m., l.m.t., I observe Polaris at western elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

At 7 a.m., l.m.t., I lay off the azimuth of Polaris, $1^{\circ} 31'$ to the east, and mark the meridian thus determined, by cutting a small groove in the stone set November 25, on which the meridian falls 0.5 ins. east

Guide Meridian, through Tp. 40 S., between Rs. 12 and 13 W. continue

CHAINS

of the mark determined by the solar.

At 8 a.m., l.m.t., I set off $37^{\circ} 17' N.$ on the lat. arc; $20^{\circ} 47' N.$ on the decl. arc; and mark a point in the meridian thus determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.5 ins. east of the meridian established by the Polaris observation.

The solar apparatus, by p.m. and a.m. observations, defines positions for meridians, respectively about $0' 26''$ west and east of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory. The magnetic bearing of the true meridian at 8h.30m. a.m., is $N 16^{\circ} 05' W.$; the angle thus determined gives the magnetic declination $16^{\circ} 05' E.$

From the Standard Cor. to Tp. 40 S. Rs. 12 and 13 W., which is a black lava stone $8 \times 8 \times 6$ ins. above ground, marked and witnessed as described by the surveyor general.

I run

North, bet. secs. 31 and 36.

Along the bottom of Le Verken Canon, on West side of creek, course S.

Over rocky and broken land, gradual ascent.

31.00 Leave canon, course N.E. and S.

Begin abrupt ascent of limestone ledges bearing N.E. and S.W.

39.00 Top of spur projects N.E., 800 ft. above Tp. cor.

Descend.

Difference between measurements of 40.00 chs., by two sets of chainmen is 18 lks.; position of middle point. By 1st. set, 40.09 chs.

By 2nd. set, 39.91 chs.; the mean of which is

40.00 Set a limestone $18 \times 12 \times 8$ ins., 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on the W. face, and raise a

Guide Meridian, through Tp. 40 S., between Rs. 12 and 13 W. continued.

CHAINS

mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

43.00 Bottom of ravine, 200 ft. deep, course E.

Abrupt ascent over limestone ledges bearing N.E. and S.W.

53.50 Top of ledges bear N.E. and S.W.

Ascend through dense artemisia and scattering cedar and pinon timber.

69.25 Top of spur projects E.

Descend.

79.40 Bottom of ravine 50 ft. deep, course S.E.

Ascend.

Difference between measurement of 80.00 chs. by two sets of chainmen is 24 lks.; position of middle point by the first set 79.88 chs.

By the second set 80.12 chs.; the mean of which is

80.00 Set a trachyte stone 18x8x6 ins., 12 ins. in the ground for cor. of secs. 25-30-31 and 36, marked with 5 notches

on the N., and 1 notch on the S. edges, from which

A cedar 4 ins. diam., bears N. 57° E., 49 lks. dist.,
marked T. 40 S. R. 12 W. S. 30 B. T.

A cedar 14 ins. diam., bears S. 22° E., 1.16 chs. dist.,
marked T. 40 S. R. 12 W. S. 31 B. T.

A cedar 15 ins. diam., bears S. 59° W., 47 lks. dist.,
marked T. 40 S. R. 13 W. S. 36 B. T.

A cedar 3 ins. diam., bears N. 27° W., 34 lks. dist.,
marked T. 40 S. R. 13 W. S. 25 B. T.

Land mountainous.

Soil rocky, 3rd. rate.

Timber, scattering cedar and pinon on 26.50 chs.

Mountainous land on 80.00 chs.

North bet. secs. 25 and 30.

Over rocky land, ascend through dense artemisia, scattering cedar and pinon timber.

Guide Meridian, through Tp. 40 S., between Rs. 12 and 13 W. continued.

CHAINS	
6.55	Top of spur projects N.E. Descend.
9.75	Bottom of ravine 75 ft. deep, course E. Ascend.
12.50	Top of spur projects E., Begin abrupt descent.
24.00	Bottom of ravine, 150 ft. deep, course E. Abrupt ascent.
27.75	Top of spur projects E. Abrupt descent.
36.40	Bottom of ravine 100 ft. deep, course N.E. Ascend. Difference between measurement of 40.00 chs., by two sets of chainmen is 20 lks.; position of middle point By 1st. set, 40.100 chs. By 2nd. set, 39.90 chs.; the mean of which is
40.00	Top of spur projects E. Set a limestone 20x12x4 ins., 15 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which A cedar 12 ins. diam., bears N. 50° W., 41 lks. dist., marked $\frac{1}{4}$ S. 25 B.T. A pinon 8 ins. diam., bears N. 46° E., 81 lks. dist., marked $\frac{1}{4}$ S. 30 B.T.
47.00	Bottom of ravine 100 ft. deep, course S.E. Ascend over broken land.
70.75	Top of spur projects E. Descend. Difference between measurement of 80.00 chs., by two sets of chainmen is 16 lks.; position of middle point By 1st. set, 79.92 chs. By 2nd. set, 80.08 chs.; the mean of which is
80.00	Set a limestone 36x7x6 ins., 27 ins. in the ground, for cor. of secs. 19-24-25 and 30, marked with 4 notches on N. and 2 notches on S. edges, from which A cedar 6 ins. diam., bears N. 17° E., 1.12 chs. dist.,

Guide Meridian, through T;.40 S.; between Rs.12 and 13 W. continued.

CHAINS

marked T.40 S.R.12 W.S.19 B.T.

A cedar 10 ins.diam., bears S.59°E.22 lks.dist.

marked T.40 S.R.12 W.S.30 B.T.

A cedar 12 ins.diam.bears N.68°W.,75 lks.dist.

marked T.40 S.R.13 W.S.24 B.T.

No other trees within limits, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Land mountainous.

Soil rocky, 3rd. rate.

Timber scattering cedar and pinon.

Mountainous land on 80.00 chs.

November 26: At this cor. I set off 20° 52' S. on the decl. arc; and at 11h. 47m. a.m. l.m.t., observe the sun on the meridian; the resulting lat. is 37° 19' N.

North bet. secs. 19 and 24.

Over rocky and rolling land, descend through dense artemisia, scrub oak and scattering cedar and pinon timber.

24.00 Begin abrupt descent.

28.50 Bottom of ravine 200 ft. deep, course E.

Abrupt ascent.

36.00 Top of spur projects E.

Descend,

Difference between measurement of 40.00 chs. by two sets of chainmen is 14 lks.; position of middle point By 1st. set, 40.07 chs.

By 2nd. set, 39.93 chs.; the mean of which is

40.00 Set a limestone 18x12x10 ins., 12 ins. in the ground for $\frac{1}{4}$ sec., marked $\frac{1}{4}$ on the W. face, from which

A cedar 4 ins. diam., bears S.81°W., 67 lks. dist., marked $\frac{1}{4}$ S.24 B.T.

A cedar 6 ins. diam., bears S.19°E., 71 lks. dist.,

GUIDE MERIDIAN, THROUGH T.40 S., BETWEEN RS.12 AND 13 W., continued.

CHAINS	
	marked $\frac{1}{4}$ S.19 B.T.
42.50	Bottom of ravine 100 ft. deep, course E. Ascend.
43.25	Top of spur projects E. Descend.
49.00	Bottom of ravine 100 ft. deep, course S.E. Ascend.
58.55	Top of spur ridge, bears N.W. and S.E. Descend.
77.00	Bottom of ravine 100 ft. deep course E. Ascend.
79.00	Top of spur projects E. Descend.
	Difference between measurement of 80.00 chs., by two sets of chainmen is 20 lks.; position of middle point By first set, 79.90 chs. By second set, 80.10 chs.; the mean of which is
80.00	Set a limestone 16x8x6 ins., 11 ins. in the ground for cor. of secs. 13=18=19 and 24, marked with 3 notches on the N. and S. edges, from which A pinon 10 ins. diam., bears N.47°E., 85 lks. dist., marked T.40 S.R.12 W.S.18 B.T. A cedar 4 ins. diam., bears S.39°E., 98 lks. dist., marked T.40 S.R.12 W.S.19 B.T. A pinon 10 ins. diam., bears S.38°W., 65 lks. dist., marked T.40 S.R.13 W.S.24 B.T. A pinon 8 ins. diam., bears N.42°W., 79 lks. dist., marked T.40 S.R.13 W.S.13 B.T.
	Land mountainous. Soil rocky, 3rd. rate. Timber scattering cedar and pinon. Mountainous land on 80.00 chs.

November 26, 1902

GUIDE MERIDIAN THROUGH T.40 S., BETWEEN Rs.12 AND 13 W., continued.

CHAINS.

November 27: At 8 a.m., l.m.t. I set off $37^{\circ} 20' N.$ on 1st. arc; $20^{\circ} 58' S.$ on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 13-18-19 and 24.

Thence I run

North bet. secs. 13 and 18.

Descend over rocky land, through scattering cedar and pinon timber.

4.00 Bottom of ravine 100 ft. deep, course E.

Ascend.

7.25 Top of spur projects S.E.

Descend.

10.50 Bottom of ravine 100 ft. deep, course E.

Abrupt ascent.

23.00 Top of spur projects E. Abrupt descent.

27.00 Hollow 100 ft. deep, course E.

Abrupt ascent, along the east slope of a high mountain ridge, bearing N.E. and S.W., over broken and rocky land.

Difference between measurement of 40.00 chs., by two sets of chainmen is 24 lks.; position of middle point By 1st. set, 39.88 chs.

By 2nd. set, 40.12 chs.; the mean of which is

40.00 Set a limestone $18 \times 14 \times 6$ ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on the W. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Difference between measurement of 80.00 chs., by two sets of chainmen is 26 lks.; position of middle point By 1st. set, 80.13 chs.

By 2nd. set, 79.87 chs.; the mean of which is

80.00 Set a limestone $16 \times 12 \times 5$ ins., 11 ins. in the ground, for cor. of secs. 7-12-13 and 18, marked with 2 notches on N. and 4 notches on S. edges, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

GUIDE MERIDIAN, THROUGH T_p.40 S., BETWEEN R_s.12 AND 13 W. continued

CHAINS

Land mountainous.

Soil rocky, 3rd. and 4th. rate.

Timber scattering cedar and pinon.

Mountainous land on 30.00 chs.

North, bet. secs. 7 and 12.

Over rocky land, ascend the steep east slope of a mountain ridge bearing N.E. and S.W., through scattering cedar and pinon timber.

Difference between measurement of 40.00 chs., by two sets of chainmen is 30 lks.; position of middle point

By 1st. set, 40.15 chs.

By 2nd. set, 39.35 chs.; the mean of which is

40.00 Set a limestone 18x14x8 ins., 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

69.25 Top of mountain ridge 2000 ft. high, bears N. 25° E. and S. 25° W.

Leave timber.

Descend over limestone ledges bearing N.E. and S.W.

Difference between measurement of 30.00 chs. by two sets of chainmen is 34 lks.; position of middle point

By 1st. set, 79.33 chs.

By 2nd. set, 80.17 chs.; the mean of which is

80.00 The point for sec. cor., 150 ft. below top of ridge, falls on smooth surface of ledges, on which I cut a cross, X, at exact cor. point, for cor. of secs. 1-6-7 and 12, marked with 1 groove on N. and 5 grooves on the S. sides, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Land mountainous.

Soil rocky, 4th. rate.

MERIDIAN, THROUGH Twp. 40 S., BETWEEN Rrs. 12 and 13 W. continued.

CHAINS

Timber scattering cedar and pinon on 69.25 chs.

Mountainous land on 80.00 chs.

November 27: At this cor. I set off $21^{\circ} 03' S.$ on the decl. arc; and at 11h. 47m. a.m., l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ} 22' N.$

North, bet. secs. 1 and 6.

Over broken limestone ledges, descend along the steep west slope of a mountain ridge.

Difference between measurement of 40.00 chs., by two sets of chainmen is 28 lks., position of middle point

By 1st. set, 39.86 chs.

By 2nd. set, 40.14 chs.; the mean of which is

40.00 Set a limestone $18 \times 12 \times 9$ ins., 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

77.00 Leave ledges bear N.E. and S.W.

Enter scattering cedar and pinon timber.

Over rocky land.

Difference between measurement of 80.00 chs. by two sets of chainmen is 30 lks., position of middle point

By first set, 80.15 chs.

By second set, 79.85 chs.; the mean of which is

80.00 Set temp. cor. for Tps. 39 and 40 S., Rrs. 12 and 13 W.

November 27, 1902.

November 28. I continue the line between secs. 1 and 6.

91.80 Intersect the cor. of Tps. 39 and 40 S., Rrs. 12 and 13 W. heretofore described.

Land mountainous.

Soil rocky, 3rd. and 4th. rate.

Timber scattering cedar and pinon on 14.80 chs.

Mountainous land on 91.80 chs.

GUIDE MERIDIAN, THROUGH T_p.40 S., BETWEEN R_s.12 and 13 W., con

For latitude and departure table, see Boundaries of
T.40 S. R.13 W.

For general description, see Subdivisions of T.40 S.
R.13 W.

Harvey D. Heist

U.S. DEPUTY SURVEYOR.

NOTE:

There being no notary public or other officer
authorized to administer oaths within reasonable
distance at the beginning or ending of this survey,
in order to save time and expense, I administer the
preliminary and final oaths myself.

Harvey D. Heist

U.S. DEPUTY SURVEYOR.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Harvey D. Heist

United States Deputy Surveyor, to assist in running, measuring, and

marking the lines and corners described in the foregoing field notes of the survey of

the Guide Meridian, through T. 40 S., bet. Rs. 12 and 13 W. of the Salt Lake Base and Meridian, Utah.

showing the respective capacities in which they acted:

- William Walquist Frank Bringham Chairman.
- Earl V. Woolley Edwin Higbee Chairman.
- Frank Duffin Moundman.
- Moundman.
- John Kitchen Arman.
- Arman.
- Herbert Riggs Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Harvey D. Heist

United States Deputy Surveyor, in surveying all

those parts or portions of the

Guide Meridian through T. 40 S., bet. Rs. 12 and 13 W.

of the Salt

Lake Base, and meridian, in the state of Utah, which are represented

in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor

General for Utah,

- William Walquist Frank Bringham Chairman.
- Earl V. Woolley Edwin Higbee Chairman.
- Frank Duffin Moundman.
- Moundman.
- John Kitchen Arman.
- Arman.
- Herbert Riggs Flagman.

Subscribed and sworn to before me this 23th.

day of November, 1902 189

Harvey D. Heist

U.S. Deputy Surveyor



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Harvey D. Heist, United States Deputy Surveyor, solemnly swear that, in pursuance of a contract received from Edward H. Anderson United States Surveyor General for Utah, bearing date of 12th day of February, 1902, 1892, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the Guide Meridian, through T. 40 S., bet. Rs. 12 and 13 W.

the Salt Lake Base of the Salt Lake Base and meridian, in the state of Utah, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Utah, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Harvey D. Heist
United States Deputy Surveyor

Subscribed by said Harvey D. Heist, and sworn to before me }
this 25th day of March, 1902, 1892



Edward H. Anderson
Surveyor General for Utah

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, February 26, 1902

The foregoing field notes of the survey of the Guide Meridian through Township 40 North between Ranges 12 and 13 West of the Salt Lake Base and Meridian, Utah

executed by Harvey D. Heist under his contract No. 251, dated February 12, 1902, 1892, having been critically examined, and the necessary corrections and explanations made, the said field notes, and surveys they describe, are hereby approved.

Edward H. Anderson
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in Utah has been correctly copied from the original notes on file in this office

United States Surveyor General

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BOOK A-297

WJB

*W.F.B.
O.C.*

FIELD NOTES

OF THE SURVEY OF THE

N-O-R-T-H and W-E-S-T- B-O-U-N-D-A-R-I-E-S

of

Township No. 40 South, Range No. 13 West.

Of the Salt Lake Base and Meridian,

in the state of Utah.

AS SURVEYED BY

Harvey D. Heist, United States Deputy Surveyor,

Under his Contract No. 251, dated February 12, 1902, 189

Survey commenced November 28, 1902, 189

Survey completed December 1, 1902, 189

*N. B. - High 5-47-30 ✓
W. " " 6-05-60 ✓
" " low - - - - - 6-00 ✓*

6-21-60

11 5-2-94

NAMES AND DUTIES OF ASSISTANTS.

William Walquist Chairman

Earl V. Woolley "

Frank Duffin Moundman

John Kitchen Axman

Herbert Riggs Flagman

Volume

#

R0297

BOOK A-297

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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

We, William Walquist and Earl V. Woolley

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey

of the N. Bdys. of T. 40 S., Rs. 13 and 15 W., & W. Bdys. of T. 40 S., Rs. 13 & 14 of the Salt Lake Base and Meridian, Utah.

William Walquist, Chainman
Earl V. Woolley, Chainman

Subscribed and sworn to before me this 28th day of November, 1902, 189



Harvey L. Geist
U.S. Deputy Surveyor

We, I, Frank Duffin

do solemnly swear that we will well and truly perform the duties of moundman in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey

of the N. Bdys. of T. 40 S., Rs. 13 & 15 W., and W. Bdys. of T. 40 S., Rs. 13 & 14 of the Salt Lake Base and Meridian, Utah.

Frank Duffin, Moundman

Subscribed and sworn to before me this 28th day of November, 1902, 189



Harvey L. Geist
U.S. Deputy Surveyor

We, I, John Kitchen

do solemnly swear that we will well and truly perform the duties of armman in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey

of the N. Bdys. of T. 40 S., Rs. 13 & 15 W., and W. Bdys. of T. 40 S., Rs. 13 & 14 of the Salt Lake Base and Meridian, Utah.

John Kitchen, Armman

Subscribed and sworn to before me this 28th day of November, 1902, 189



Harvey L. Geist
U.S. Deputy Surveyor

I, Herbert Riggs, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in

the survey of the N. Bdys. T. 40 S. Rs. 13 & 15 W., & W. Bdys. T. 40 S. Rs. 13 & 14 W. of the Salt Lake Base and Meridian.

Herbert Riggs, Flagman

Subscribed and sworn to before me this 28th day of November, 1902, 189



Harvey L. Geist
U.S. Deputy Surveyor

NORTH BOUNDARY OF T.40 S., R.13 W., EASTERN PORTION.

CHAINS

Survey commenced, November 28, 1902, and executed with the instrument described in book *S*, of this survey. I know the instrument to be in adjustment from recent observations made November 25 and 26 and recorded in book *S* of this survey.

At 8 a.m., l.m.t. I set off $37^{\circ} 22' 30''$ N. on the lat. arc; $21^{\circ} 09'$ S. on the decl. arc; and determine a true meridian with the solar at the temp. cor. for Tps. 39 and 40 S., Rs. 12 and 13 W.

Thence I run

West on a random line

Bet. secs. 1 and 36.

34.87 Fall 11.80 chs. S. of the $\frac{1}{4}$ sec. cor. bet. secs. 1 and 36, which is a limestone $10 \times 8 \times 6$ ins. above the ground, marked as described by the surveyor general.

From the $\frac{1}{4}$ sec. cor. just described, I run

East on a true line

Bet. secs. 1 and 36.

Ascend through dense artemisia and oak brush.

14.75 Begin abrupt ascent over rocky land, bearing N. and S.

34.87 Intersect Guide Meridian, 11.80 chs. N. of temp. cor. for Tps. 39 and 40 S., Rs. 12 and 13 W.

The point for Tp. cor., 400 ft. above $\frac{1}{4}$ sec. cor., falls on a trachyte boulder $40 \times 30 \times 20$ ins. above the ground, I cut a cross at exact cor. point for cor. to Tps. 39 and 40 S., Rs. 12 and 13 W., marked

39 S. on N.E.,

$12\frac{1}{2}$ W. on S.E.,

40 S. on S.W., and

13 W. on N.W. faces; and with 6 notches on each edge, from which

A cedar 8 ins. diam., bears $S. 49^{\circ} E.$, 38 lks. dist., marked T. 40 S. R. 12 W. S. 1 B. T.

A cedar 4 ins. diam., bears $N. 53^{\circ} E.$, 76 lks. dist., marked T. 39 S. R. 12 W. S. 31 B. T.

NORTH BOUNDARY OF T.40 S.R.13 W., Eastern Portion. concluded.

CHAINS

No other trees within limits, and raise a mound of stone, 2 ft. base, 1½ ft. high, S. of cor.

Pits impracticable.

Land mountainous.

Soil, sandy on 14.00 chs. 2nd. rate.

rocky, on 20.87 chs. 3rd. rate.

No timber.

Mountainous land or dense undergrowth on 34.87 chs.

WEST BOUNDARY OF T.40 S., R.13 W.

CHAINS

Survey commenced November 29, 1902, and executed with the instrument described in book *S* of this survey. I know the instrument to be in adjustment, from recent observations made November 25 and 26, and recorded in book *S* of this survey.

At 8 a.m., l.m.t., I set off $37^{\circ} 17' N.$ on the lat. arc; $21^{\circ} 20' S.$ on the decl. arc; and determine a true meridian with the solar at the Stan. Cor. to Tp. 40 S., Rs. 13 and 14 W., which is a gray sandstone $30 \times 12 \times 10$ ins. lying on the ground, the stumps of two witness trees described by the surveyor general were found,

I reset the stone 24 ins. in the ground, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

Pits impracticable.

Thence I run

North, bet. secs. 31 and 36.

Ascend over rocky land.

- 6.00 Old road bears N.E. and S.W.
Enter dense artemisia, and scattering scrub oak.
- 13.75 Same road, bears N.W. and S.E.
- 21.40 Same road, bears N.E. and S.W.
- 24.60 Same road, bears N.W. and S.E.
- 30.00 Same road, bears N.E. and S.W.
- 34.75 Same road, bears N.W. and S.E.
- 40.00 Set a trachyte stone $24 \times 12 \times 8$ ins., 18 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on the W. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
Pits impracticable.
- 46.00 Top of ridge bears N.W. and S.E.
Descend.
- 54.00 Hollow 50 ft. deep, course E.
Ascend.
- 62.00 Top of spur projects E.
Descend.
- 65.00 Bottom of ravine 100 ft. deep, course E.

WEST BOUNDARY OF T.40 S., R.13 W., continued.

CHAINS	
	Ascend.
72.00	Top of spur projects E. Descend.
74.25	Bottom of ravine 100 ft. deep, course, SE. Ascend.
80.00	Set a sandstone 20x8x4 ins., 15 ins. in the ground for cor. of secs. 25-30-31 and 36, marked with 5 notches on the S. and 1 notch on the N. edges, and raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable. Land rolling. Soil stony, 3rd. rate. No timber. Dense undergrowth on 74.00 chs.
<hr/> <p>North, bet. secs. 25 and 30.</p> <p>Over rocky land, ascend through dense artemisia, scrub oak and scattering cedar and pinon timber.</p>	
13.50	Top of ridge bears N.E. and S.W. Descend.
17.00	Begin ascent.
27.00	Top of ridge bears N.E. and S.W. Descend.
29.00	Begin abrupt descent!
30.50	Bottom of ravine 100 ft. deep, course S.W. Ascend, along spur ridge bearing N. and S.
40.00	Set a red sandstone 24x15x5 ins., 18 ins. in the ground for ¼ sec. cor., marked ½ on the W. face, and raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor. Pits impracticable.
53.00	Bend in ridge bears S. and N.W. Descend.
60.00	Ascend.
71.50	Begin abrupt ascent.

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TRAIL BOUNDARY OF T.40 S., R.13 W. continued.

- 5.75 Top of spur projects E.
Descend.
- 79.45 Hollow 50 ft. deep, course E.
Ascend.
- 80.00 Set a sandstone 24x14x6 ins., 18 inn. in the ground for cor. of secn. 19-24-25 and 30, marked with 4 notches on N. and 2 notches on S. edges, from which
A cedar 5 inn. diam., bears S. 78° W., 43 lks. dist., marked
T. 40 S. R. 14 W. S. 25 N. T.
A cedar 5 inn. diam. bears N. 84° W., 70 lks. dist., marked
T. 40 S. R. 14 W. S. 24 N. T.
- No other trees within limits and raise a mound of stone 2 ft. diam., 14 ft. high, W. of cor.
Pits impracticable.
Land rolling.
Soil rocky 3rd. rate.
Timber scattering cedar and pinon.
Dense undergrowth on 80.00 obs.
November 20. At this cor. I set off 21° 24' S. on the decl. arc; and at 11h. 45m. a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37° 10' N.
-
- North, bet. secn. 19 and 24.
Over rocky land ascend through dense artemisia, scrub oak and scattering cedar and pinon timber.
- 7.25 Top of spur projects N.E.
Descend.
- 9.75 Bottom of ravine 100 ft. deep, course N.E.
Ascend.
- 14.00 Top of spur projects E.
Descend.
- 18.50 Bottom of ravine 100 ft. deep, course E.
Ascend.
- 35.30 Top of spur projects E.
Descend.

WEST BOUNDARY OF T.40 S., R.13 W. continued.

CHAINS	
37.10	Bottom of ravine 75 ft. deep, course E. Ascend.
39.70	Top of spur projects E. Descend.
40.00	Set a sandstone 24x12x10 ins., 18 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on the W. face, from which A cedar 4 ins. diam., bears S. 36° E., 39 lks. dist., marked $\frac{1}{4}$ S. 19 B.T. A cedar 5 ins. diam., bears N. 76° W., 39 lks. dist., marked $\frac{1}{4}$ S. 24 B.T.
42.25	Bottom of ravine 100 ft. deep, course S.E. Ascend.
51.00	Begin abrupt ascent.
64.95	Top of a sandstone Knoll 600 ft. high, on line. Abrupt descent over boulders.
80.00	Set a sandstone 30x12x7 ins., 23 ins. in the ground for cor. of secs. 13-18-19 and 24, marked with 3 notches on N. and S. edges, from which A pinon 3 ins. diam., bears N. 43° W., 23 lks. dist., marked T. 40 S. R. 14 W. S. 15 B.T. A pinion 5 ins. diam., bears S. 84° W., 29 lks. dist., marked T. 40 S. R. 14 W. S. 24 B.T. No other trees within limits and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land mountainous. Soil rocky 3rd. rate. Timber scattering cedar and pinon. Mountainous land on 80.00 chs.

WEST BOUNDARY OF T.40 S. R.13 W. continued.

CHAINS

North bet.secs.13 and 18.

Over trachyte boulders,descend through scattering cedar and pinon timber.

1.50 Bottom of ravine 150 ft.deep,course S.E.

Ascend.

7.50 Top of spur projects S.E.

Descend.

11.00 Bottom of ravine 100 ft.deep,course S.E.

Ascend.

Enter heavy cedar and pinon timber bears N.W.and S.E.

40.00 Set a sandstone 18x18x5 ins.,12 ins.in theground for

$\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on the W.face,from which

A cedar 10 ins.diam.,bears N.54°W.,16 lks.dist.,marked,

$\frac{1}{4}$ S.13 B.T.

A cedar 5 ins.,diam.,bears N.40°E.,13 lks.dist.,

marked $\frac{1}{4}$ S.18 B.T.

49.75 Top of ridge bears N.E.and S.W.

Descend.

76.00 Head of ravine course S.E.

Leave heavy timber bears E.and W.

Enter scattering timber and dense oak brush.

Ascend.

80.00 Set a sandstone 24x16x4 ins.,18 ins.in the ground for

corner of secs.7-12-13and 18,marked with 2 notches

on N.and 4 notches on S.edges,from which

A pinon 6 ins.diam.,bears N.68° W.,34 lks.dist.,

marked T.40 S.R.14 W.S.12 B.T.

A pinon 5 ins.diam.,bears S.15°W.,37lks.dist.,

marked T.40 S.,R.14 W. S.13 B.T.

No other trees within limits and raise a mound of stone 2 ft.base, $1\frac{1}{2}$ ft.high,W.of cor.

Pits impracticable.

This cor.is 800 ft. above the cor.of secs.

13-18-19 and 24.

WEST BOUNDARY OF T.40 S., R.13 W. continued.

CHAINS

Land mountainous.

Soil rocky 3rd.rate.

Heavy cedar and pinon on 65.00 chs.

Mountainous land on 80.00 chs.

November 29, 1902.

November 30: At 8 a.m., l.m.t., I set off $37^{\circ} 21' N.$ on lat.arc; $21^{\circ} 30' S.$ on decl.arc; and determine a true meridian with the solar, at the cor. of secs.

7-12-13 and 18.

Thence I run

North, bet. secs. 7 and 12.

Over rocky land, ascend abruptly through dense oak, service berry and laurel brush.

40.00 Set a trachyte stone 16x12x6 ins. in the ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on the W. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

46.50 Top of ridge 800 ft. above sec.cor., bears E. and W. Descend.

74.60 Bottom of ravine 300 ft. deep, course S.E. Ascend.

80.00 Set a trachyte 18x12x6 ins. 12 ins. in the ground, for cor. of secs. 1-6-7-12, marked with 5 notches on S. and 1 notch on N. edges, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Land mountainous.

Soil rocky 3rd.rate.

No timber.

Mountainous land on 80.00 chs.

North, bet. secs. 1 and 6.

Over rocky land ascend through dense artemisia, oak service berry brush.

WHEAT BOUNDARY OF T.40 S. R.13 W. concluded.

CHAINS

- 12.25 Top of spur projects E.
Descend.
- 26.25 Spring branch, 2 lks. wide, in bottom of canon 600 ft.
deep, course S.E.
Ascend over broken land.
- 40.00 Set a trachytstone 15x10x6 ins., 10 ins. in the ground
for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on the W. face, and raise a
mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
Pits impracticable.
- 80.00 Set temp. cor. for Tps. 39 and 40 S., Rs. 13 and 14 W.

November 30, 1902.

December 1:

I continue the line bet. secs. 1 and 6.

- 86.50 Top of ridge bears N.W. and S.E.
800 ft. above bottom of canon.
Descend.
- 91.60 Intersect cor. to Tps. 39 and 40 S., Rs. 13 and 14 W.
described in the notes of the N. bdy. of this Tp.
Land mountainous.
Soil rocky 3rd. rate.
No timber.
Mountainous land on 91.60 chs.

December 1, 1902.

NORTH BOUNDARY OF T.40 S., R.13 W., WESTERN PORTION.

CHAINS

November 30: At 3 p.m., l.m.t., I set off $37^{\circ} 22' 30''$ N. on the lat. arc; $21^{\circ} 35' S.$ on the decl. arc; and determine a true meridian with the solar, at the cor. of secs. 1-2-35 and 36, on the N. Bdy. of the Tp., which is a blue limestone $10 \times 10 \times 3$ ins. above the ground, marked as described by the surveyor general.

At this cor. I mark bearing trees as follows:

A cedar 6 ins. diam., bears N. $13^{\circ} E.$, 70 lks. dist., marked T.39 S. R.13 W. S.36 B.T.

A cedar 5 ins. diam., bears S. $43^{\circ} E.$, 50 lks. dist., marked T.40 S., R.13 W. S.1 B.T.

A cedar 4 ins. diam., bears S. $42^{\circ} W.$, 17 lks. dist., marked T.40 S. R.13 W. S.2 B.T.

A cedar 5 ins. diam., bears N. $53^{\circ} W.$, 1.29 chs. dist., marked T.39 S. R.13 W. S.35 B.T.

Thence I run

West on a true line, bet. secs. 2 and 35.

Over rocky land, ascend through dense artemisia, scattering oak, cedar and pinon timber.

30.00 Top of spur projects S. Descend.

34.50 Hollow 50 ft. deep, course S. Ascend.

40.00 Set a lava stone $24 \times 14 \times 4$ ins., 18 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on the N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
Pits impracticable.

51.00 Top of spur projects S. Descend.

54.00 Wood road bears N.W. and S.E.

55.50 Hollow 50 ft. deep, course S.E.
Ascend.

62.50 Top of ridge, bears N. and S.
Descend.

80.00 Set a sandstone $15 \times 8 \times 6$ ins., 10 ins. in the ground for cor. of secs. 2-3-34 and 35, marked with 2 notches on E. and 4 notches on W. edges, from which

NORTH BOUNDARY OF T.40 S., R.13 W., WESTERN PORTION, continued.

CHAINS

A cedar 5 ins.diam., bears N.82°E., 1.09 chs. dist.,
marked T.39 S. R.13 W. S.35 B.T.

No other trees within limits, and raise a mound of
stone 2 ft. base, 1½ ft. high, W. of cor.

Pits impracticable.

Land rolling.

Soil rocky 3rd. rate.

Timber scattering cedar and pinon.

Dense undergrowth, on 80.00 chs.

West on a true line, bet. secs. 3 and 34.

Over rocky land, descend through dense artemisia, oak,
scattering cedar and pinon timber.

.25 Bottom of ravine 100 ft. deep, course S.E.

Ascend abruptly over lava boulders.

1.50 Top of abrupt ascent.

Begin gradual ascent.

25.50 Top of ridge 200 ft. above secs. cor., bears N.15°W.
and S.15°E. Descend.

31.00 Bottom of ravine 150 ft. deep, course S.

Ascend.

40.00 Set a limestone 20x6x6 ins., 15 ins. in the ground, for
¼ sec. cor., marked ¼ on the N. face, from which

A pinon 6 ins. diam., bears N.12°E., 50 lks. dist.,
marked ¼ S.34 B.T.

A cedar 12 ins. diam., bears S.50°W., 30 lks. dist.,
marked ¼ S.3 B.T.

41.00 Top of spur projects S.

Descend.

46.00 Bottom of ravine 150 ft. deep, course S.E.

Ascend.

51.40 Top of ridge bears N.W. and S.E.

Descend.

62.00 West fork of Ash Creek, 8 lks. wide, 10 ins. deep, in
canon 200 ft. deep, course S.E.

NORTH BOUNDARY OF T.40 S. R.13 W., WESTERN PORTION. continued.

CHAINS	
	Ascend.
75.50	Top of spur projects N.
	Descend.
80.00	Set a trachyte stone 15x12x8 ins., 10 ins. in the ground for cor. of secs. 3-4-33 and 34, marked with 3 notches on E. and W. edges, from which
	A cedar 6 ins. diam., bears N. 04° E., 94 lks. dist., marked T.39 S. R.13 W. S.34 B.T.
	No other trees within limits, and raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor.
	Pits impracticable.
	Land mountainous.
	Soil rocky 3rd. rate.
	Timber scattering cedar and pinon.
	Mountainous land on 80.00 chs.
	November 30, 1902.
	December 1: At 8-a.m., l.m.t., I set off 37° 22' 30" N. on the lat. arc; 21° 40' S. on the decl. arc; and determine a true meridian with the solar, at the cor. of secs. 3-4-33 and 34.
	Thence I run
	West on a true line bet. secs. 4 and 33.
	Over rocky land, descend through dense artemisia, oak, laurel, scattering cedar and pinon timber.
5.00	Begin abrupt descent.
9.75	West fork of Ash Creek, 8 lks. wide, 8 ins. deep, in canon 150 ft. deep, course N.E.
	Ascend.
33.25	Top of spur projects S.
	Descend.
40.00	Falls on a trachyte boulder 36x36x30 ins. above ground, I cut a cross, x, at exact point for ¼ sec. cor., and mark ¼ on N. side of cross, from which

NORTH BOUNDARY OF T.40 S. R.13 W., WESTERN PORTION. continued.

CHAINS

A pinon 6 ins.diam., bears S.53°E., 9 lks.dist., marked
 $\frac{1}{2}$ S.4 B.T.

A cedar 7 ins.diam., bears N.38°W., 34 lks.dist.,
 marked $\frac{1}{4}$ S.33 B.T.

41.00 Bottom of ravine 100 ft.deep, course S.E.
 Ascend.

42.30 Top of spur projects S.E.
 Begin abrupt descent.

47.70 West fork of Ash Creek, 5 lks wide, 10 ins.deep, in
 canon 150 ft.deep, course S.E.
 Begin abrupt ascent.

60.00 Top of ridge bears N. and S.
 Descend.

71.50 Begin abrupt descent.

77.00 Bottom of ravine 250 ft.deep, course S.
 Begin abrupt ascent.

80.00 Set a sandstone 24x12x6 ins., 18 ins.in the ground,
 for cor.of secs.4-5-32 and 33, marked with 2 notches on
 W.and 4 notches on E.edges, from which

A pinon 8 ins.diam., bears N.12°E., 37 lks.dist.,
 marked T.39 S. R.13 W. S.33 B.T.

A cedar 4 ins.diam., bears N.11° W., 21 lks.dist.,
 marked T.39 S. R.13 W. S.32 B.T.

No other trees within limits and raise a mound of
 stone 2 ft.base, $1\frac{1}{2}$ ft.high, W.of cor.

Pits impracticable.

Land mountainous.

Soil rocky 3rd.rate.

Timber scattering cedar and pinon.

Mountainous land on 80.00 chs.

December 1 ; At this cor.I set off 21° 44'S.on the
 decl.arc; and at 11h.49m.a.m., 1.m.t., observe the sun
 on the meridian, the resulting lat.is 37° 23'N.

NORTH BOUNDARY OF T.40 S. R.13 W., WESTERN PORTION. continued.

CHAINS.

- West on a true line, bet. secs. 5 and 32.
Ascend abruptly over rocky land through scattering cedar and pinon timber.
- 6.25 Top of ridge bears N.10°E. and S.10°W.
Descend abruptly.
- 29.00 Bottom of canon 800 ft. deep, course S.15°E.
Ascend abruptly.
- 40.00 Set a sandstone 24x6x6 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on the N. face, from which
A pine 10 ins. diam., bears S.36°W., 10 lks. dist., marked $\frac{1}{4}$ S.5 B.T.
A pine 12 ins. diam., bears N.76°W., 64 lks. dist., marked $\frac{1}{4}$ S.32 B.T.
- 54.00 Top of ridge bears N.10°W. and S.10°E.
Descend abruptly.
- 60.25 Bottom of ravine 200 ft. deep, course S.W.
Ascend.
- 64.00 Top of spur projects S.
Descend.
- 76.00 Bottom of ravine 200 ft. deep, course S.E.
Ascend.
- 80.00 Set a sandstone 15x12x4 ins., 10 ins. in the ground, for cor. of secs. 5-6-31 and 32, marked with 1 notch on W. and 5 notches on E. edges, from which
A cedar 4 ins. diam., bears N.39°E., 47 lks. dist., marked T.39 S. R.13 W. S.32 B.T.
A cedar 4 ins. diam., bears N.8°W. 88 lks. dist., marked T.39 S. R.13 W. S.31 B.T.
No other trees within limits, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
Pits impracticable.
Land mountainous.
Soil rocky 4th. rate.
Timber scattering cedar, pinon and yellow pine.
Mountainous land on 80.00 chs.

NORTH BOUNDARY OF T.40 S. R.13 W., WESTERN PORTION. continued.

CHAINS

- West on a true line bet. secs. 6 and 31.
Over rocky land, ascend through dense artemisia, oak, laurel, service berry, scattering cedar and pinon timber.
- 7.00 Top of ridge bears S.E. and N.W.
Descend.
- 9.00 Begin ascent.
- 21.00 Begin abrupt ascent.
- 40.00 Set a sandstone 20x8x6 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on the N. face, from which
A cedar 4 in. diam., bears N. 20° E., 27 lks. dist., marked $\frac{1}{4}$ S. 37 B.T.
A cedar 6 in. diam., bears S. 18° E., 34 lks. dist., marked $\frac{1}{4}$ S. 6 B.T.
- 45.25 Top of ridge, 1000 ft. above sec. cor., bears N. and S.
Descend.
- 55.50 Bottom of ravine 150 ft. deep, course S.
Ascend.
- 60.00 Top of spur projects S.E.
Descend.
Leave timber.
- 64.30 Bottom of canon 500 ft. deep, course S.E.
Ascend abruptly.
- 89.50 Top of abrupt ascent, begin gradual ascent.
- 92.43 Intersect W. Bdy. of Tp. ^{11.60} ~~13.35~~ chs. N. of temp. cor. for Tp. 39 and 40 S., R. 13 and 14 W.
I destroy temp. cor. and
Set a sandstone 18x12x6 ins., 12 ins. in the ground for cor. to Tps. 39 and 40 S., Rs. 13 and 14 W., marked
39 S. on N.E.,
13 W. on S.E.,
40 S. on S.W., and
14 W. on N.W. face; and with 6 notches on each edge, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, S. of cor.
Pits impracticable.

NORTH BOUNDARY OF T.40 S., R.13 W., WESTERN PORTION. concluded.

This cor. is 1500 ft. above the cor. of secs. 5-6-31 and 32.

Land mountainous. soil rocky 3rd. rate.

Timber scattering cedar and pinon on 60.00 chs.

Mountainous land on 92.43 chs.

BOUNDARIES OF T.40 S., R.13 W.

Latitudes, departures, and closing errors.

Line Designated	True Bearing	Distance chs.	Latitudes		Departures	
			N. chs.	S. chs.	E. chs.	W. chs.
8th. Stan. Par. S. S. Bdy. of secs.						
35 & 36	N. 89° 59' W.	160.00 ✓	.05	-	-	160.00 ✓
" 34	N. 89° 34' W.	40.90 ✓	.30	-	-	40.90 ✓
"	N. 89° 42' W.	40.94 ✓	.21	-	-	40.94 ✓
" 33	N. 89° 45' W.	40.47 ✓	.17	-	-	40.47 ✓
"	N. 89° 40' W.	41.30 ✓	.24	-	-	41.30 ✓
" 32	N. 89° 57' W.	41.02 ✓	.04	-	-	41.02 ✓
"	N. 89° 31' W.	41.31 -	.29	-	-	41.31 ✓
" 31	S. 89° 39' W.	82.66 ✓	-	.50	-	82.66 ✓
West Bdy.	North	491.60 ✓	491.60	-	-	-
North Bdy.	East	412.43	-	-	412.43	-
N. bdy. sec. 1	S. 89° 20' E.	40.98	-	.48	40.98	-
	East	34.87	-	-	34.87	-
Guide Meridian	South	491.80	-	491.80	-	-
Convergency					.54	
Totals			492.90	492.78 ✓	488.82 ✓	488.60 ✓
			492.78		488.60	
Error in lat. and dep.			.12		.22	

For general description, see book of subdivisions.

Harvey L. Heis
U.S. DEPUTY SURVEYOR

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____

_____, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of _____

showing the respective capacities in which they acted:

For final affidavits see book T 6 p. 110. S. R. B. M.

_____, Chairman.

_____, Chairman.

_____, Moundman.

_____, Moundman.

_____, Axman.

_____, Axman.

_____, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____

_____, United States Deputy Surveyor, in surveying all those parts or portions of the _____

_____ of the _____ meridian, _____ of _____

in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for _____

For final affidavits see book T 6 p. 110. S. R. B. M.

_____, Chairman.

_____, Chairman.

_____, Moundman.

_____, Moundman.

_____, Axman.

_____, Axman.

_____, Flagman.

Subscribed and sworn to before me this _____ day of _____, 189 _____ }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, solemnly swear that, in pursuance of a contract received from _____ United States Surveyor General for _____, bearing date of the _____ day of _____, 189____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____ of the _____ meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Final office book
16 pp.
10.5 pp.

United States Deputy Surveyor

Subscribed by said _____, and sworn to before me }
this _____ day of _____, 189____



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Dall Lake City, Feb. 26, 1902

The foregoing field notes of the survey of *the East & West Boundaries of Township 40 South Range 13 West of the Dall Lake Base & Meridian, Idaho*

executed by *Harvey D. Hunt* under his contract No. *251*, dated *February 12, 1902*, 189____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward H. Anderson
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General

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W.H.B.
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BOOK A-297

FIELD NOTES

OF THE SURVEY OF THE

R-E-T-R-A-C-E-M-E-N-T

of the

NORTH BOUNDARY

of

Township No. 40 S., Range No. 13 West.

of the Salt Lake Base and Meridian.

in the state of Utah.

AS SURVEYED BY

Harvey B. Heist, United States Deputy Surveyor,

Under his Contract No. 251, dated February 12, 1902. 189

Retacement
Survey commenced November 28, 1902. 189

Retacement
Survey completed November 28, 1902. 189

Retacement base - 40.98 ✓

33 B

E.H.B.

NAMES AND DUTIES OF ASSISTANTS.

Frank Bringhamst Chairman

William Walquist "

Frank Duffin Moundman

John Kitchen Axman

Herbert Riggs Flagman

BOOK A-297

INDEX DIAGRAM.

Township....., Range.....

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30	31	32	33	34	35

Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

We, Frank Bringham and William Walquist do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; we will report the true distances to all notable objects, and the true lengths of all lines that we assi measuring, to the best of our skill and ability, and in accordance with instructions given us, in the ^{retrac} ~~surv~~

the N. Bdy. of T. 40 S. R. 13 W. of the Salt Lake Base and Meridian, Utah.

Frank Bringham, Chain
William Walquist, Chain

Subscribed and sworn to before me this 28th day of November, 1902, 189

Harvey L. Heis
U.S. Deputy Surveyor



We, I, Frank Duffin and do solemnly swear that ~~we~~ ^{me} will well and truly perform the duties of moundmen in the establish of corners, according to the instructions given ~~us~~ ^{me} to the best of ~~our~~ ^{my} skill and ability, in the ^{retrac} ~~surv~~

the N. Bdy. of T. 40 S. R. 13 W. of the Salt Lake Base and Meridian, Utah.

Frank Duffin, Mound
Mound

Subscribed and sworn to before me this 28th day of November, 1902, 189

Harvey L. Heis
U.S. Deputy Surveyor



We, I, John Kitchen and do solemnly swear that ~~we~~ ^{me} will well and truly perform the duties of axmen in the establishment of co and other duties, according to instructions given ~~us~~ ^{me} to the best of ~~our~~ ^{my} skill and ability, in the ^{retrac} ~~surv~~

the N. Bdy. of T. 40 S. R. 13 W. of the Salt Lake Base and Meridian, Utah.

John Kitchen, Ax
Ax

Subscribed and sworn to before me this 28th day of November, 1902, 189

Harvey L. Heis
U.S. Deputy Surveyor



I, Herbert Riggs, do solemnly swear that I will well and perform the duties of flagman according to instructions given me, to the best of my skill and ability, i retracement of the N. Bdy. of T. 40 S. R. 13 W. of the Salt Lake Base and Meridian, Utah.

Herbert Riggs, Flag

Subscribed and sworn to before me this 22th day of November, 1902, 189

Harvey L. Heis
U.S. Deputy Surveyor



RETRACEMENT OF THE NORTH BOUNDARY OF T.40 S., R.13 W.

CHAINS

Survey commenced, November 28, 1902, and executed with the instrument described in book *S* of this survey. I know the instrument to be in adjustment from recent observations made November 25 and 26 and recorded in book *S* of this survey.

At 10 a.m., l.m.t., I set off $37^{\circ} 22' 30''$ N. on the lat. arc; $21^{\circ} 13'$ S. on decl. arc; and determine a true meridian with the solar, on the N. Bdy. of the Tp., at the cor. of secs. 1-2-35 and 36, heretofore described.

Thence I run, on the N. Bdy. of the Tp.

East on a blank line, bet. secs. 1 and 36, and at 40.98 chs. fall 48 lks. N. of the $\frac{1}{4}$ sec. cor. bet. secs. 1 and 36.

The course of this line is therefore $S. 89^{\circ} 20' E.$ and the dist. is 40.98 chs.

Thence I run

$N. 89^{\circ} 20' W.$ bet. secs. 1 and 36,

Along N. Bdy. of Tp.

Through dense artemisia, descend.

3.35 Telegraph line, Salt Lake City to St. George, bears N. and S.

6.20 Ash Creek, 10 lks. wide, 10 ins. deep, course S. Ascend.

12.55 Wire fence bears N.E. and S.W.

18.70 Road, from Salt Lake City to St. George bears N.E. and S.W.

20.40 Wash, 5x5 ft. course S.

Enter scattering cedar and pinon timber.

Begin abrupt ascent over rocky land.

40.98 The cor. of secs. 1-2-35 and 36, heretofore described.

Land mountainous.

Soil, sandy on 20.40 chs., 2nd. rate.

rocky on 20.58 chs., 3rd. rate.

Timber scattering cedar and pinon on 20.58 chs.

RETRACEMENT OF THE NORTH BOUNDARY OF T.40 S., R.13 W., concluded.

Dense undergrowth on 40.98 chs.

November 28, 1902.

For table of latitude and departures, see Boundaries of T.40 S., R.13 W.

For general description, see Subdivisions of T.40 S., R.13 W.

Harvey L. Heist

U.S. DEPUTY SURVEYOR.

NOTE:

There being no notary public or other officer authorized to administer oaths within a reasonable distance at the beginning or ending of this survey, in order to save time and expense I administer the preliminary and final oaths myself.

Harvey L. Heist

U.S. DEPUTY SURVEYOR

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Harvey D. Heist

United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the ^{retracement} survey of

the N. Bdy. of T. 40 S., R. 13 W.

of the Salt Lake Base and Meridian, Utah.

showing the respective capacities in which they acted:

Frank Bringhamst Chairman.

William Walquist Chairman.

Frank Duffin Moundman.

..... Moundman.

John Kitchen Arman.

Arman.

Herbert Riggs Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Harvey D. Heist

United States Deputy Surveyor, in ^{retracing} surveying all

those parts or portions of the

N. Bdy. of T. 40 S., R. 13 W.

of the Salt

Lake Base and meridian, in the state of Utah, which are represented

in the foregoing field notes as having been ^{relocated} surveyed by him and under his direction; and that said survey

has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor

General for Utah.

Frank Bringhamst Chairman.

William Walquist Chairman.

Frank Duffin Moundman.

Moundman.

John Kitchen Arman.

Arman.

Herbert Riggs Flagman.

Subscribed and sworn to before me this 28th.

day of November, 1902, 189

Harvey D. Heist

U.S. Deputy Surveyor



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, EDWARD H. ANDERSON, United States Deputy Surveyor, do hereby swear that, in pursuance of a contract entered into with the United States Government, I have, since the date of the hearing, bearing date of February 1902, performed the duties of a Surveyor in the State of Utah, and in strict conformity with the instructions furnished by the United States Surveyor General, Edward H. Anderson, the Manual of Surveying Instructions, and the laws of the United States, and the following articles of the Constitution of the United States:

ART. I, SECTION 8, CLAUSE 5.

Section 8, Clause 5, of the Constitution of the United States, which are represented in the following articles of the Constitution of the United States, and I do further swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General, Edward H. Anderson, and in the specific manner described in the field notes, and the accompanying original field notes of each survey; and should any fraud be detected, I will be guilty of perjury under the provisions of an Act of Congress approved August 6, 1846.

Edward H. Anderson
United States Deputy Surveyor

I, Edward H. Anderson, do hereby swear that I have read the foregoing and understand the contents thereof, and I do hereby swear that I will faithfully perform the duties of a Surveyor in the State of Utah, and in strict conformity with the instructions furnished by the United States Surveyor General, Edward H. Anderson, the Manual of Surveying Instructions, and the laws of the United States, and the following articles of the Constitution of the United States:

Edward H. Anderson
Surveyor General



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

Edward H. Anderson, Deputy Surveyor, State of Utah, has been appointed to perform the duties of a Surveyor in the State of Utah, and in strict conformity with the instructions furnished by the United States Surveyor General, Edward H. Anderson, the Manual of Surveying Instructions, and the laws of the United States, and the following articles of the Constitution of the United States:

Edward H. Anderson
Surveyor General

Edward H. Anderson
Surveyor General

I, Edward H. Anderson, do hereby swear that I have read the foregoing and understand the contents thereof, and I do hereby swear that I will faithfully perform the duties of a Surveyor in the State of Utah, and in strict conformity with the instructions furnished by the United States Surveyor General, Edward H. Anderson, the Manual of Surveying Instructions, and the laws of the United States, and the following articles of the Constitution of the United States:

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V.
BOOK A-297

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FIELD NOTES

S. X. 13.

OF THE ^{RE} SURVEY OF THE

S-U-B-D-I-V-I-S-I-O-N-S

of

Township No. 40 South, Range No. 13 West.

Of the Salt Lake Base and Meridian,

in the state of Utah.

AS SURVEYED BY

Harvey D. Heist, United States Deputy Surveyor,

Under his Contract No. 251, dated February, 12, 1902., 189

Survey commenced December 2, 1902., 189

Survey completed December 2, 1902., 189

6-151

Re Survey High 2-06-00 ✓
" " Low - - - - - ✓
61.20 ✓
2-65 00

NAMES AND DUTIES OF ASSISTANTS.

Frank Bringham

Chairman

William Walquist

"

Frank Duffin

Moundman

John Kitchen

Axman

Herbert Riggs

Flagman

BOOK A-297

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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, Frank Bringhurst and William Walquist

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey

of the Subdivisions of T.40 S., R.13 W. of the Salt Lake Base and Meridian, Utah.

Frank Bringhurst, Chainman
William Walquist, Chainman

Subscribed and sworn to before me this 2nd day of December, 1902, 189

Harvey L. Heist
U.S. Deputy Surveyor



WE, I, Frank Duffin and

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey

of the Subdivisions of T.40 S., R.13 W. of the Salt Lake Base and Meridian, Utah.

Frank Duffin, Moundman

Subscribed and sworn to before me this 2nd day of December, 1902, 189

Harvey L. Heist
U.S. Deputy Surveyor



WE, I, John Kitchen and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey

of the Subdivisions of T.40 S., R.13 W. of the Salt Lake Base and Meridian, Utah.

John Kitchen, Axman

Subscribed and sworn to before me this 2nd day of December, 1902, 189

Harvey L. Heist
U.S. Deputy Surveyor



I, Herbert Riggs, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the

survey of the Subdivisions of T.40 S., R.13 W. of the Salt Lake Base and Meridian, Utah.

Herbert Riggs, Flagman

Subscribed and sworn to before me this 2nd day of December, 1902, 189

Harvey L. Heist
U.S. Deputy Surveyor



RESURVEY OF THE SUBDIVISIONS OF T.40 S., R.13 W.

CHAINS

Survey commenced, December 2, 1902, and executed with the instrument described in book S of this survey. I know the instrument to be in adjustment from recent observations made November 25. and 26, and recorded in book S of this survey.

At 8 a.m., l.m.t., I set off $37^{\circ} 17' N.$ on the lat. arc; $21^{\circ} 49' S.$ on the decl. arc; and determine a true meridian with the solar, on the Eighth Standard Parallel South, the S. Bdy. of the Tp., at the cor. of secs. 1-2-35 and 36, which is a gray sandstone boulder 4x3x2 ft. above ground, marked as described by the surveyor general. Thence I run

North, bet. secs. 35 and 36.

Descending over rocky land.

11.25 Bottom of ravine 150 ft. deep, course N.E.

Ascend.

35.00 Top of rocky spur, projects N.E.

Descend over broken and rocky land.

40.00 Set a trachyte stone 24x14x12 ins., 18 ins. in the ground, for reestablished $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

From this cor. the witness corner to the $\frac{1}{4}$ sec. cor., bears W. 10.00 chs. dist., which is a trachyte stone 9x9x6 ins. above the ground, marked as described by the surveyor general.

55.40 Bottom of ravine 300 ft. deep, course N.W.

Ascend along broken limestone ledges bearing N. and S.

80.00 Set a limestone 18x12x5 ins., 12 ins. in the ground, for reestablished cor. to secs. 25-26-35 and 36, marked with 1 notch on S. and E. edges, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

The witness cor. to cor. of secs. 25-26-35 and 36, bears

RESURVEY OF THE SUBDIVISIONS OF T.40 S., R.13 W. continued.

CHAINS

W., 28.00 chs. dist., which is a trachyte boulder 42x30 x18 ins. above ground, marked as described by the surveyor general.

Land mountainous.

Soil rocky 4 th. rate.

No timber.

Mountainous land on 80,00 chs.

From the cor. of secs. 25-26-35 and 36, I run

West on a random line, bet. secs. 26 and 35.

28.00 Intersect witness cor. to cor. of secs. 25-26-35 and 36, heretofore described.

Thence I run

East on a true line,

bet. secs. 26 and 35.

Descend abruptly over lava ledges bearing N. and S.

22.90 Ash Creek 5 lks. wide, 4 ins. deep, in canon 200 ft. deep, course S. 15° E.

Leave lava rock, ascend over rocky land.

26.00 Begin abrupt ascent over limestone boulders.

28.00 The cor. of secs. 25-26-35 and 36.

Land mountainous.

Soil rocky 4th. rate.

No timber.

Mountainous land on 28.00 chs.

December 2, At this cor. I set off 21° 54' S. on the decl. arc; and at 0h. 11m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is 37° 18' N.

RESURVEY OF THE SUBDIVISIONS OF T.40 S.,R.13 W.,continued.

CHAINS

From the cor.of secs.1-2-35 and 36,heretofore described,on the N.Bdy.of the Tp.,

I run

South,retracing bet.secs.1 and 2.

40.00 No trace of the 1/4 sec.cor.can be found.

80.00 No trace of the cor.of secs.1-2-11 and 12,can be found.

Therefore I resurvey the line bet.secs.1 and 2, as follows:

From the cor.of secs.1-2-35 and 36,on the N. Bdy.of the Tp.

I run

South,on a resurvey line,

Bet.secs.1 and 2.

Over rocky land,descend through dense a rtemisia, scattering oak,cedar and pinon timber.

15.50 Leave rocky land and timber.

19.00 Street in Bellevue,bears N.20°E.and S.20°W.

21.50 Fence on east side of street,bears N.20°E.and S.20°W.

27.00 Andrew Gregersen's house,bears W.30 lks.dist.

29.50 East end of circular corral,115 lks.diam.,

Enter cultivated land.

39.80 Stone fence,bears N.W.and S.E.

40.00 Set a granite stone 18x12x8 ins.,12 ins.in the ground,for reestablished 1/4 sec.cor.,marked 1/4 on W. face,and raise a mound of stone 2 ft.base,1 1/2 ft.high, W.of cor.

Pits impracticable.

After diligent search,no trace of old 1/4 sec.cor.can be found.

42.60 Stone fence,bears N.W.and S.E.

Enter orchard belonging to Altheris Gregersen.

60.60 Stone fence,bears N.W.and S.E.

Leave orchard.

61.20 Middle of street,bears N.W.and S.E.

61.90 Fence,bears N.W.and S.E.

RESURVEY OF THE SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

Enter garden.

63.60 Frame house, 30x20 ft., belonging to Joseph Sylvester, bears E., 4.00 chs. dist.

A frame house, 30x20 ft., belonging to Altheria Greger-
sen, bears W., 5.00 chs. dist.

66.30 Frame house 40x30 ft., belonging to William Gates, bears E., 1.00 ch. dist.

68.00 Stone fence, bears N.W. and S.E.

69.40 Fence, bears N.W. and S.E.

70.55 Frame barn, 40x30 ft., belonging to William Gates, on line.

73.85 Wire fence, bears N.E. and S.W.

Leave cultivated land, bears N.E. and S.W.

74.70 Road, from Salt Lake City to St. George, bears N.E. and S.W.

Enter dense artemisia and scattering oak brush, over rocky land.

80.00 Point for cor. falls into the bottom of Ash Creek, the nearest point this cor. can be set to be safe from floods is 1.00 ch. west.

Therefore, 1.00 ch. west, from true point for cor., I set a trachyte stone 20x12x8 ins., 15 ins. in the ground, for witness. Cor. reestablished cor. of secs. 1-2-11 and 12, marked W.C. on E. face, and with 5 grooves on S. and 1 groove on E. faces, and raise a mound of stone 2 ft. base, 1 $\frac{1}{4}$ ft. high, W. of cor.

Pits impracticable.

Land rolling.

Soil, sandy loam on 61.20 chs., 1st. rate.

rocky on 18.80 chs., 3rd. rate.

Timber, scattering cedar and pinon on 15.50 chs.

Dense undergrowth on 18.80 chs.

18.80
61.20

h

RESURVEY OF THE SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

From the point for the cor. of secs. 1-2-11 and 12.

I run

West, retracing bet. secs. 2 and 11.

40.00 No trace of the $\frac{1}{4}$ sec. cor. can be found.

Therefore I resurvey the line bet. secs. 2 and 11,
as follows:

From the true point for the cor. of secs. 1-2-11 and 12,

I run

West, on a resurvey line,

bet. secs. 2 and 11.

1.00 The witness cor. to cor. of secs. 1-2-11 and 12,
heretofore described.

Over rocky land, ascend through dense artemisia and
scattering oak brush.

4.50 Road from Salt Lake City to St. George, bears N.E.
and S.W.

7.55 Old road, bears N.E. and S.W.

11.00 Top of ridge, bears N. and S.

Descend.

16.65 Bottom of ravine, 75 ft. deep, course S.

Ascend.

40.00 Set a trachyte stone 18x10x8 ins., 12 ins. in the ground,
for reestablished $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face,
and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high,
N. of cor.

Pits impracticable.

After diligent search, no trace of the old $\frac{1}{4}$ sec. cor.
can be found.

Land rolling.

Soil, stony 3rd. rate.

No timber.

Dense undergrowth on 40.00 chs.

December 2, 1902.

RESURVEY OF THE SUBDIVISIONS OF T.40 S., R.13 W., concluded.

For table of latitudes and departures, see Boundaries of T.40 S., R.13 W.

For General Description, see Subdivisions of T.40 S. R.13 W.

Harvey H. Geist

U.S. DEPUTY SURVEYOR

There being no notary public or other officer authorized to administer oaths within reasonable distance at the beginning or ending of this survey, in order to save time and expense, I administer the preliminary and final oaths myself.

Harvey H. Geist

U.S. DEPUTY SURVEYOR.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Harvey D. Heist

United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of

the Subdivisions of T.40 S., R.13 W. of the Salt Lake Base and Meridian, Utah. showing the respective capacities in which they acted:

Frank Bringhamst Chainman.

William Walquist Chainman.

Frank Duffin Moundman.

Moundman.

John Kitchen Arman.

Arman.

Herbert Riggs Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Harvey D. Heist

United States Deputy Surveyor, in surveying all those parts or portions of the

Subdivisions of T.40 S., R.13 W.

of the Salt

Lake Base and meridian, in the state of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah.

Frank Bringhamst Chainman.

William Walquist Chainman.

Frank Duffin Moundman.

Moundman.

John Kitchen Arman.

Arman.

Herbert Riggs Flagman.

Subscribed and sworn to before me this 2nd, day of December, 1902, 189

Harvey D. Heist

U.S. Deputy Surveyor



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Harvey D. Heist, United States Deputy Surveyor, solemnly swear that, in pursuance of a contract received from Edward H. Anderson United States Surveyor General for Utah, bearing date of 12th day of February, 1902, 189, I have well, faithfully, and truly, in my proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Utah, the Manual of Surveying Instructions, and the laws of United States, surveyed all those parts or portions of the subdivisions of T. 40 S., R. 15 W.

of the Salt Lake Base and _____ meridian, in the state of Utah, which are represented in foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Utah, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Harvey D. Heist
United States Deputy Surveyor

Subscribed by said Harvey D. Heist, and sworn to before me }
this 26th day of March, 1902, 189

Edward H. Anderson
Surveyor General for Utah



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, February 26, 1902

The foregoing field notes of the survey of the subdivisions of lines of Township 40 South Range 13 West of the Salt Lake Base & Meridian, Utah

executed by Harvey D. Heist under his contract No. 251, dated February 12, 1902, 189, having critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward H. Anderson
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in _____ has been correctly copied from the original notes on file in this office

United States Surveyor General

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BOOK A-297

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M.S.B.

FIELD NOTES

OF THE SURVEY OF THE

S-U-B-D-I-V-I-S-I-O-N L-I-N-E-S

of

Township No. 40 South, Range No. 13 West.

Of the Salt Lake Base and Meridian,

in the state of Utah.

AS SURVEYED BY

Harvey D. Heist, United States Deputy Surveyor,

Under his Contract No. 251, dated February 12, 1902, 189

Survey commenced December 3, 1902, 189

Survey completed December 16, 1902, 189

High 56-58-59 ✓
Low - - - - - 19.50 ✓
Change 48.05 ✓

189

NAMES AND DUTIES OF ASSISTANTS.

William Tolson

Chairman.

George Wilson

John Fitch

Members

Earl S. Bradley

James Miller

Members

Wey Sherman

Members

BOOK A-297

INDEX DIAGRAM.

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See Page 321
for Index Diagram

PRELIMINARY OATHS OF ASSISTANTS.

WE, WILLIAM WALQUIST and GEORGE WILSON

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

the Subdivisions of T.40 S., Rs. 13, 14 and 15 W. & T. 41 S., R. 14 W. of the Salt Lake Base and Meridian, Utah.

William Walquist, Chainman
George Wilson, Chainman

Subscribed and sworn to before me this 3rd day of December, 1902, 189

Harvey L. Heist
U.S. DEPUTY SURVEYOR



WE, JOHN KITCHEN and EARL V. WOOLLEY

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

the Subdivisions of T.40 S., Rs. 13-14 & 15 W., and T. 41 S., R. 14 W. of the Salt Lake Base and Meridian, Utah.

John Kitchen, Moundman
Earl V. Woolley, Moundman

Subscribed and sworn to before me this 3rd day of December, 1902, 189

Harvey L. Heist
U.S. DEPUTY SURVEYOR



WE, I, JAMES POTTER

do solemnly swear that we will well and truly perform the duties of axman in the establishment of corner and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

the Subdivisions of T.40 S., Rs. 13-14 & 15 W., and T. 41 S., R. 14 W. of the Salt Lake Base and Meridian, Utah.

James Potter, Axman

Subscribed and sworn to before me this 3rd day of December, 1902, 189

Harvey L. Heist
U.S. DEPUTY SURVEYOR



I, OLRY SORENSON, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of the Subdivisions of T.40 S., Rs. 13-14 & 15 W., and T. 41 S., R. 14 W. of the Salt Lake Base and Meridian, Utah.

Olry Sorenson, Flagman

Subscribed and sworn to before me this 3rd day of December, 1902, 189

Harvey L. Heist
U.S. DEPUTY SURVEYOR



SUBDIVISIONS OF T.40 S.,R.13 W.

CHAINS

Survey commenced, December 3, 1902, and executed with the instrument described in book S of this survey.

I know the instrument to be in adjustment, from recent observations made November 25 and 26, and recorded in book S of this survey.

At 8 a.m., l.m.t., I set off $37^{\circ} 18' N.$ on the lat. arc; $21^{\circ} 58' S.$ on the decl. arc; and determine a true meridian with the solar, at the cor. of secs. 25-26-35 and 36, heretofore described.

Thence I run

S. $89^{\circ} 59' E.$ on a random line, bet. secs. 25 and 36.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.40 Intersect Guide Meridian, 7 lks. N. of the cor. of secs. 25-30-31 and 36, heretofore described.

Thence I run

N. $89^{\circ} 56' W.$, on true line,

Bet. secs. 25 and 36.

Descend over rocky land, through dense artemisia, scattering cedar and pinon timber.

.50 Bottom of ravine 50 ft. deep, course S.E.

Ascend, over rolling land.

40.20 Set a limestone $24 \times 12 \times 5$ ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on the N. face, from which A cedar 6 ins. diam., bears N. $41^{\circ} W.$, 41 lks. dist., marked $\frac{1}{4}$ S. 25 B.T.

A cedar 7 ins. diam., bears S. $21^{\circ} E.$, 1.05 chs. dist., marked $\frac{1}{4}$ S. 36 B.T.

46.00 Top of ridge, 500 ft. above sec. cor., bears N. and S. Descend.

48.40 Head of ravine course S.W.

Ascend.

51.40 Top of spur projects S.

Abrupt descent.

67.25 Bottom of ravine 150 ft. deep, course S.

Abrupt ascent.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS	
71.90	Top of ridge, bears N.10°W. and S.10°E. Abrupt descent.
79.00	Top of limestone ledges, bearing N. and S., 100 ft. high.
80.00	Foot of ledges, bear N. and S. Descend abruptly over boulders.
80.40	The cor. of secs. 25-26-35 and 36. Land mountainous. Soil rocky, 3rd. and 4th. rate. Timber scattering cedar and pinon timber. Mountainous land on 80.40 chs.
	N.0° 01'W., bet. secs. 25 and 26. Ascend over broken limestone ledges.
1.50	Foot of ledges, 100 ft. high, bear N.10°W. and S.10°E.
3.00	Top of ledges, bear N.10°W. and S.10°E. Ascend abruptly over rocky land.
40.00	Bend in mountain ridge, 800 ft. above sec. cbr. bears S.E. and N.E. Set a limestone 18x16x10 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on the W. face, and raise a mounds of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Over rocky land, descend along the steep west slope of high, mountain ridge.
80.00	Set a limestone 18x10x10 ins., 12 ins. in the ground, for cor. of secs. 23-24-25 and 26, marked with 2 notches on S. and 1 notch on E. edges; and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land mountainous. Soil rocky 4th. rate. No timber. Mountainous land on 80.00 chs, December 3. At this cor. I set off 22° 02' S. on decl. arc; and at 11h. 50m., a.m., 1.m.t., observe the sun on

SURDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS	
	the meridian, the resulting lat. is $37^{\circ} 19' N.$

	S. $89^{\circ} 56' E.$, on a random line bet. secs. 24 and 25.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.42	Intersect Guide Meridian, 5 lks. S. of the cor. of secs. 19-24-25 and 30, heretofore described.
	Thence I run
	N. $89^{\circ} 58' W.$, on a true line,
	Bet. secs. 24 and 25.
	Over rocky land, ascend through dense artemisia, scattering cedar and pinon timber.
14.50	Spur ridge, bears N.W. and S.E.
	Descend.
40.21	Set a limestone $13 \times 15 \times 6$ ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on the N. face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
	Pits impracticable.
46.50	Bottom of ravine 200 ft. deep, course S.E.
	Begin abrupt ascent.
72.00	Top of mountain ridge, 1500 ft. high, bears N. $10^{\circ} E.$ and S. $10^{\circ} W.$
	Begin abrupt descent.
80.42	The cor. of secs. 23-24-25 and 30.
	Land mountainous.
	Soil rocky, 3rd. and 4th. rate.
	Timber, scattering cedar and pinon.
	Mountainous land on 80.42 chs.

	N. $0^{\circ} 01' W.$, bet. secs. 23 and 24.
	Over rocky and broken land, descend along the west slope of a high, mountain ridge.
40.00	Set a limestone $20 \times 16 \times 10$ ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked with $\frac{1}{4}$ on the W. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

Pits impracticable.

80.00 Set a limestone 15x12x12 ins., 10 ins. in the ground, for cor. of secs. 13-14 23 and 24, marked with 3 notches on S. and 1 notch on E. edges, and raise a mound of stone 2 ft. base, 1½ ft. high, W. of cor.

Pits impracticable.

Land mountainous..

Soil rocky 4th. rate.

No timber.

Mountainous land on 80.00 chs.

December 3, 1902.

December 4; At 8 a.m., l.m.t., I set off 37° 20' N. on lat. arc; 22° 07' S. on decl. arc; and determine a true meridian with the solar, at the cor. of secs. 13-14-23 and 24.

Thence I run

S. 89° 58' E., on a random line,

Bet. secs. 13 and 24.

40.00 Set temp. ¼ sec. cor.

80.44 Intersect Guide Meridian, 3 lks. S. of the cor. of secs. 13-18-19 and 24, heretofore described.

Thence I run

N. 89° 59' W., on a true line,

Bet. secs. 13 and 24.

Over broken and rocky land, ascend through scattering cedar and pinon timber.

10.50 Top of ridge bears N.W. and S.E.

Descend.

32.00 Head of ravine, course S.E.

Begin abrupt ascent.

40.22 Set a limestone 18x15x6 ins., 12 ins. in the ground, for ¼ sec. cor., marked ¼ on the W. face, and raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor.

Pits impracticable.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

51.50 Top of mountain ridge, 1600 ft. high, bears N.15°E. and S.15°W.

Begin abrupt descent.

80.44 The cor. of secs. 13-14-23 and 24.

Land mountainous.

Soil rocky, 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.44 chs.

N.0° 01'W., bet. secs. 13 and 14.

Over rocky and broken land, descend abruptly along the steep, west slope of a mountain ridge.

19.00 Foot of abrupt descent, 500 ft. below sec. cor., bears N.E. and S.W.

Rolling descent, enter scattering cedar and pinon timber.

40.00 Set a limestone 15x12x10 ins., 10 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on the W. face, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

52.00 Bottom of ravine 150 ft. deep, course S.W.

Ascend.

65.00 Top of spur projects S.W.

Descend.

73.50 Bottom of ravine 100 ft. deep, course N.W.

Ascend.

76.80 Top of spur projects W.

Descend.

80.00 Set a sandstone 24x6x6 ins., 18 ins. in the ground, for cor. of secs. 11-12-13 and 14, marked with 4 notches on S. and 1 notch on E. edges, from which

A pinon 12 ins. diam., bears N.32°E., 1.15 chs. dist., marked T.40 S., R.13 W. S.12 B.T.

A pinon 3 ins. diam., bears S.84°E., 45 lks. dist., marked

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

T.40 S. R.13 W. S.13 B.T.

A maple 4 ins.diam., bears N.27°W., .83 lks.dist.,
marked T.40 S. R.13 W. S.11 B.T.

No other trees within limits, and raise a mound of
stone, 2 ft. base, 1½ ft. high, W. of cor.

Pits impracticable.

Land mountainous.

Soil rocky 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.00 chs.

December 4; At this cor. I set off 22° 10' S. on decl.
arc; and at 11h.50m.a.m., 1.14.t., observe the sun on
the meridian, the resulting lat. is 37° 21' N.

S.89° 59'E., on a random line, bet. secs. 12 and 13.

40.00 Set temp. ¼ sec. cor.

20.41 Intersect Guide Meridian, 7 lks. S. of the cor. of secs.
7-12-13 and 18, heretofore described.

Thence I run

S.29° 58'W., on a true line,

Bet. secs. 12 and 13.

Abrupt, broken and rocky ascent, through scattering
cedar and pinon timber.

26.00 Top of mountain ridge, 1700 ft. high, bears N.20°E.
and S.20°W.

Abrupt descent over limestone ledges bearing N.E.
and S.W.

40.20 Point for ¼ sec. cor. falls on steep slope and cannot
be set.

46.50 Feet of ledges, 200 ft. below top of ridge, bear N.E.
and S.W.

Set a limestone 15x10x5 ins., 10 ins. in the ground, for
witness cor. to ¼ sec. cor., marked ¼ W.C. on N. face,
and raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor.

SUBDIVISIONS OF T.40 S. R.13 W., continued.

CHAINS

Pits impracticable.

66.20 Bottom of ravine, 100 ft. deep, course S.W.
Ascend.

72.50 Top of spur ridge bears N.E. and S.W.
Descend.

80.41 The cor. of secs. 11-12-13 and 14.
Land mountainous.
Soil rocky 4th. rate.
Timber scattering cedar and pinon.
Mountainous land on 80.41 chs.

N.0°01'W., bet. secs. 11 and 12.

Descend.

.10 Bottom of ravine, 100 ft. deep, course S.W.
Ascend over rocky land through dense artemisia, oak,
scattering cedar and pinon timber.

7.75 Top of spur projects S.W.
Descend.

16.00 Bottom of ravine 100 ft. deep, course S.W.
Ascend.

24.00 Top of spur projects S.W.
Descend.

32.60 Bottom of ravine 200 ft. deep, course S.W.
Abrupt ascent over lava rock.

40.00 Set a trachyte stone 24x15x10 ins., 18 ins. in the
ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on the W. face, from
which,

A cedar 5 ins. diam., bears N.16°W., 66 lks. dist.,
marked $\frac{1}{4}$ S.11 B.T.

A cedar 6 ins. diam., bears N.79°E., 96 lks. dist.,
marked $\frac{1}{4}$ S.12 B.T.

41.00 Top of spur projects S.W.
Descend.

45.00 Hollow, 50 ft. deep, course S.W.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS	
	Ascend.
48.50	Top of spur projects S.W. Descend abruptly over lava boulders.
67.75	Ash Creek, 10 lks. wide, 6 ins. deep, 300 ft. below top of spur, course S.W. Ascend over rolling land.
80.00	Set a trachyte stone 20x10x4 ins., 15 ins. in the ground for cor. of secs. 1, 5, 7 AND 12, marked with 5 notches on S. and 1 notch on E. edges, from which A cedar 5 ins. diam., bears N. 14° 30' E., 51 lks. dist., marked T.40 S. R.13 W. S.1 B.T. A cedar 3 ins. diam., bears S. 16° E., 37 lks. dist., marked T.40 S. R.13 W. S.12 B.T. Land, mountainous. Soil, rocky, 3rd. and 4th. rate. Timber scattering cedar and pinon. Mountainous land on 80.00 chs.
	—————
	N. 89° 58' E., on a random line, bet. secs. 1 and 12.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.40	Intersect Guide Meridian, 3 lks. N. of the cor. of secs. 1-6-7-and 12, heretofore described. Thence I run S. 89° 59' W., on a true line Bet. secs. 1 and 12. Descend abruptly over broken, rocky, west slope of a mountain ridge.
40.20	Set a limestone 18x16x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
45.40	Bottom of ravine, 100 ft. deep, course, S.W.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

Ascend.

51.15 Top of spur projects S.W.

Descend.

74.70 Ash Creek, 10 lks. wide, 6 ins. deep, course S.W.

Over rolling land, ascend through dense artemisia, scattering cedar and pinon timber.

80.40 The cor. of secs. 1 and 12.

Land mountainous.

Soil rocky, 3rd. and 4th. rate.

Timber scattering cedar and pinon.

Mountainous land on 80.40 chs.

 N.0° 01' W., bet. secs. 1 and 11.

Gradual ascent through dense artemisia, scattering cedar and pinon timber.

3.50 Telegraph line, Salt Lake City to St. George, bears N.E. & S.W.

12.00 Road, Salt Lake City to St. George bears N.E. and S.W.

12.25 Intersect E. and W. line, 3.55 chs. W. of witness cor. of secs 1-2-11 and 12, heretofore described.

Set a trachyte stone 18x12x8 ins., 12 ins. in the ground for closing cor. to secs. 1 and 11, marked C.C. on S.; with 5 grooves on S. and 1 groove on E. faces, from which

A cedar 4 ins. diam., bears S. 10° E., 1.09 chs. dist., marked T.40 S. R.13 W. S.1 B.T.

A cedar 2 ins. diam., bears S. 43° W., 71 lks. dist.,

marked T.40 S. R.13 W. S.11 B.T. Destroy all marks on old cor. for secs. 1-2-11 and 12, pertaining to secs. 1-11 and 12, and re-mark it for the S.E. of sec. 2 only. Land, rolling.

Soil rocky 3rd. rate.

Timber scattering cedar and pinon.

Dense undergrowth on 12.25 chs.

December 4, 1902.

SUBDIVISIONS OF T.40 S. R.13 W., continued.

TRAINS

At the cor. of secs. 26-27-34 and 35, which is a trachyte stone 10x10x10 ins. above the ground, marked as described by the surveyor general.

December 5: At 8 a.m., l.m.t., I set off $37^{\circ} 18' N.$ on the lat. arc; $22^{\circ} 15' S.$ on the decl. arc; and determine a true meridian with the solar.

Thence I run

$N. 0^{\circ} 01' W.$, bet. secs. 26 and 27.

Over rocky land, ascend through dense artemisia.

29.00 Bend in ridge bears N.E. and S.E.

Enter scattering cedar and pinon timber.

Descend.

40.00 Set a trachyte stone 18x8x6 ins., 12 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
A cedar 5 ins. diam., bears $S. 57^{\circ} W.$, 21 lks. dist., marked $\frac{1}{4}$ S. 27 B.T.

A cedar 5 ins. diam., bears $S. 80^{\circ} E.$, 1.00 chs. dist., marked $\frac{1}{4}$ S. 26 B.T.

67.00 Head of ravine course S.W.

Ascend.

71.00 Top of ridge bears N.E. and S.W.

Descend over lava boulders.

80.00 Set a sandstone 20x15x6 ins., 15 ins. in the ground, for cor. of secs. 22-23-26 and 27, marked with 2 notches on S. and E. edges, from which

A cedar 4 ins. diam., bears $N. 72^{\circ} E.$, 30 lks. dist., marked T.40 S. R.13 W. S. 23 B.T.

A cedar 4 ins. diam., bears $S. 12^{\circ} E.$, 1.14 chs. dist., marked T.40 S. R.13 W. S. 26 B.T.

A cedar 4 ins. diam., bears $S. 22^{\circ} W.$, 1.11 chs. dist., marked T.40 S. R.13 W. S. 27 B.T.

No other trees within limits and raise a mound of stone 2 ft. base, 1 ft. high, W. of cor.

Pits impracticable.

Land rolling.

SUBDIVISIONS OF T.40 S., R.13 W. continued.

CHAINS

Timber scattering cedar and pinon.

Dense undergrowth on 80.00 chs.

Fast, on a random line bet. secs. 23 and 26.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.02 Intersect N. and S. line, 7 lks. N. of the cor. of secs.
23-24-25 and 26.

Thence I run

N. $89^{\circ}57'W.$, on a true line,

Bet. secs. 23 and 26.

Descend abruptly over rocky land and broken lime-
stone ledges.

28.00 Leave ledges bear N. and S.

Enter scattering cedar and pinon timber.

40.01 Set a trachyte stone $13 \times 10 \times 6$ ins., 12 ins. in the g round
for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ S. on the N. face, from which
A cedar 8 ins. diam., bears S. $38^{\circ}E.$, 71 lks. dist.,
marked $\frac{1}{4}$ S. 26 B.T.

A cedar 5 ins. diam., bears N. $10^{\circ}W.$, 95 lks. dist.,
marked $\frac{1}{4}$ S. 23 B.T.

51.50 Ash Creek 5 lks. wide, 4 ins. deep, in canon 200 ft. deep,
course S.E.

The bottom of this canon is 200 ft. below sec. cor.

Ascend abruptly over lava ledges.

56.00 Top of abrupt ascent.

Begin gradual ascent.

62.60 Road to Toquerville bears N. and S.

66.55 Telegraph line, Salt Lake City to St. George bears
N. and S.

73.30 Rocky spur projects N.E.

Descend.

80.02 The cor. of secs. 22-23-26 and 27.

Land mountainous.

Soil rocky 3rd. and 4th. rate.

Timber scattering cedar and pinon timber.

SUBDIVISIONS OF T.40 S.; R.13 W., continued.

CHAINS

Mountainous land on 80.02 chs.

December 5: A this cor. I set off $22^{\circ} 19' S.$ on the decl. arc; and at 11h.50m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ} 19' N.$

N. $0^{\circ} 01' W.$, bet. secs. 22 and 23.

Over rocky land descend through dense artemisia, scattering cedar and pinon timber.

- 3.75 Leave rocky land, over nearly level sandy land.
- 17.00 Road from Salt Lake City to St. George, bears N.E and S.W.
- 33.50 Wash, 15 ft. wide, 10 ft. deep, course E.
- 40.00 Set a trachyte stone 24x15x 10 ins., 18 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on the W. face, from which
- A cedar 4 ins. diam., bears $S. 57^{\circ} W.$, 93 lks. dist., marked $\frac{1}{4}$ S. 22 B. T.
- A cedar 3 ins. diam., bears $N. 70^{\circ} E.$, 39 lks. dist., marked $\frac{1}{4}$ S. 23 B. T.
- 41.40 Wash, 20 ft. wide, 5 ft. deep, course E.
- 62.65 Wash, 10x10 ft. course E.
Begin ascent.
- 75.60 Road from Salt Lake City to St. George, bears N.W. and S.E.,
- 80.00 Set a trachyte stone 15x14x5 ins., 10 ins. in the ground for cor. of secs. 14-15-22 and 23, marked with 3 notches on S. and 2 notches on E. edges, from which
- A cedar 3 ins. diam., bears $N. 69^{\circ} 30' E.$, 14 lks. dist., marked T. 40 S., R. 13 W. S. 14 B. T.
- A cedar 8 ins. diam., bears $S. 38^{\circ} 30' E.$, 40 lks., dist., marked T. 40 S. R. 13 W. S. 23 B. T.
- A cedar 5 ins. diam., bears $S. 79^{\circ} W.$, 68 lks. dist., marked T. 40 S. R. 13 W. S. 22 B. T.
- A cedar 6 ins. diam., bears $N. 86^{\circ} W.$, 1.00 chs. dist. marked T. 40 S. R. 13 W. S. 15 B. T.
- Land rolling.

SUBDIVISIONS OF T.40-S.,R.13 W.,continued.

CHAINS

Soil stony and sandy 3rd.rate.

Timber scattering cedar and pinon.

Dense undergrowth on 80.00

S.89°57'E.on a random line,bet.secs.14 and 23.

40.00 Set temp. $\frac{1}{4}$ secs.cor.

80.06 Intersect N.and S.line,3 lks.S.of the cor.of secs.
13-14~~23~~ and 24.

Thence I run

N.89° 53'W.,on a true line,

Bet.secs.14 and 23.

Descend abruptly over broken limestone ledges.

30.50 Foot of steep descent bears N.and S.

32.50 Bottom of ravine 100 ft.deep,course S.W.

Ascend.Enter dense artemisia.

38.00 Top of spur projects S.

Descend.

40.03 Set a limestone 18x12x10 ins.,12 ins.in the ground,
for $\frac{1}{4}$ sec.cor.,marked $\frac{1}{4}$ on N.face,and raise a mound
of stone 2 ft.base,1 $\frac{1}{2}$ ft.high,N.of cor.,
Pits impracticable.

46.50 Ash Creek,now dry,course S.

Ascend.

52.50 Top of spur projects S.

Enter scattering cedar and pinon timber.

Descend.

54.00 Telegraph line from Salt Lake City to St.George,
bear s N.and S.

68.00 Hollow,50 ft.deep,course S.

Ascend.

77.00 Top of spur projects S.

Descend.

80.06 The cor.of secs.14-15-22 and 23.

600 ft.below the cor.of secs.13-14 23 and 24.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

Land mountainous.

Soil rocky 3rd. rate.

Timber scattering cedar and pinon.

Mountainous land on 80.06 chs.

December 5, 1902.

December 6; At 8 a.m., l.m.t., I set off $37^{\circ} 20' N.$ on the lat. arc; $22^{\circ} 22' S.$ on the decl. arc; and determine a true meridian with the solar, at the cor. of secs.

14-15-22 and 23.

Thence I run

$N. 0^{\circ} 01' W.$, bet. secs. 14 and 15.

Over rolling, rocky land, descend through dense artemisia scattering cedar and pinon timber.

21.00 Bottom of ravine, 75 ft. deep, course $S. 20^{\circ} W.$

Ascend.

23.50 Descend.

29.00 Same ravine, course $S. 20^{\circ} E.$

Ascend.

32.00 Descend.

34.00 Same ravine, course $S. W.$

Ascend.

40.00 Set a lava stone $15 \times 10 \times 4$ ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
A pinon 5 ins. diam., bears $S. 64^{\circ} E.$, 28 lks. dist., marked $\frac{1}{4}$ S. 14 B.T.

A cedar 8 ins. diam., bears $N. 83^{\circ} W.$, 26 lks. dist., marked $\frac{1}{4}$ S. 15 B.T.

40.90 Old road bears N.E. and S.W.

43.60 A trachyte boulder $18 \times 10 \times 5$ ft. above ground, on line.

44.25 Top of ridge bears E. and W.

Descend.

55.50 Wash, 10×10 ft. course $S. W.$

56.90 Road from Salt Lake City to St. George, bears N.E. and S.W.

SUBDIVISIONS OF T.40 S.,R.13 W.,continued.

CHAINS	
80.00	<p>Set a trachyte stone 30x12x3 ins.,23 ins.in the ground for cor.of secs.10-11-14 and 15,marked with 4 notches on S.and 2 notches on E.edges,from which</p> <p>A cedar 3 ins.diam.,bears S.67°30'W.,21 lks.dist., marked T.40 S. R.13 W.S.15 B.T.</p> <p>No other trees within limits,and raise a mound of stone 2 ft.base,1½ ft.high,W.of cor.</p> <p>Pits impracticable.</p> <p>Land rolling.</p> <p>Soil rocky 3rd.rate.</p> <p>Timber scattering.cedar and pinon.</p> <p>Dense undergrowth on 80.00 chs.</p>
	<p>S.29° 58'E.,on a random line,bet.secs.11 and 14.</p>
40.00	Set temp.¼ sec.cor.
80.02	<p>Intersect N.and S.line,3 lks.S.of the cor.of secs. 11-12-13 and 14.</p>
	Thence I run
	<p>N.89° 59'W.,on a true line,</p>
	<p>Bet.secs.11 and 14.</p>
	Descend.
.25	<p>Bottom of ravine 100 ft.deep,course S.W.</p> <p>Ascend through scattering cedar and pinon timber.</p>
3.25	<p>Top of spur projects S.W.</p> <p>Descend.</p>
9.00	<p>Ash Creek,now dry,in ravine 100 ft.deep,course S.</p> <p>Ascend through dense artemisia and scrub oak.</p>
32.00	<p>Telegraph line from Salt Lake City to St.George, bears N.and S.</p>
40.01	<p>Set a lava stone 18x12x6 ins.,12 ins.in the ground, for ¼ sec.cor.,marked ¼ .on N.face,from which</p> <p>A cedar 6 ins.diam.,bears S.9°W.,70 lks.dist.,marked ¼ S.14 B.T.</p> <p>A cedar 3 ins.diam.,bears N.20°E.,25 lks.dist., marked ¼ S.11 B.T.</p>

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

- 41.00 Top of ridge, bears N. and S.
Descend.
- 47.50 Hollow, 50 ft. deep, course N.
Ascend.
- 50.00 Top of spur projects N.
Descend.
- 68.90 Road from Salt Lake City to St. George, bears N. and S.
- 70.00 Bottom of ravine, 75 ft. deep, course S.
Ascend.
- 80.02 The cor. of secs. 10-11-14 and 15,
Land mountainous on 9.00 chs.
balance rolling.
Soil rocky 3rd. rate.
Timber scattering cedar and pinon.
Dense undergrowth or mountainous land on 80.02 chs.
December 6: At this cor. I set off $22^{\circ} 26' S.$ on decl.
arc; and at 11h. 50m. 30am, 1.m.t., observe the sun on
the meridian, the resulting lat. is $37^{\circ} 21' N.$
-
- $N. 0^{\circ} 01' W.$, bet. secs. 10 and 11.
Over rolling land ascend through dense artemisia, scrub
oak, scattering cedar and pinon timber..
- 36.00 Top of spur projects S.E.
Descend.
- 40.00 Set a trachyte stone 24x8x6 ins., 18 ins. in the ground
for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
A cedar 4 ins. diam., bears East, 15 lks. dist., marked
 $\frac{1}{4}$ S. 11 B.T.
No other trees within limits, and raise a mound of
stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
Pits impracticable.
- 41.00 Bottom of ravine 75 ft. deep, course S.E.
Ascend over rolling land.
- 80.00 Set a trachyte stone 24x14x10 ins., 18 ins. in the

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

ground, for cor. of secs. 2-3-10 and 11, marked with 5 notches on S. and 2 notches on E. edges, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Land rolling.

Soil stony, 3rd. rate.

Timber scattering cedar and pinon.

Dense undergrowth on 30.00 chs.

The line bet. secs. 2 and 11 will not close within limits, at the cor. of secs. 2-3-10 and 11, therefore; From the reestablished $\frac{1}{2}$ sec. cor. bet. secs. 2 and 11, heretofore described, I run

West on a true line bet. secs. 2 and 11.

Over rolling land ascend through dense artemisia and scrub oak.

5.00 Top of ridge bears N.W. and S.E.

Descend.

19.75 West fork of Ash Creek, 10 lks. wide, 4 ins. deep, in canon 100 ft. deep, course S.E.

Ascend.

39.75 Top of spur projects S.E.

Descend.

44.60 Intersect N. and S. line, 12.26 chs. N. of W. of the cor. of secs. 2-3-10 and 11, I destroy all marks pertaining to sec. 2

Set a trachyte stone 20x10x5 ins., 15 ins. in the ground for closing cor. to secs. 2 and 11, marked C.C. on E, with 5 grooves on S. and 2 grooves on E. faces, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, E. of cor. Pits impracticable.

Land rolling.

Soil rocky 3rd. rate.

No timber.

Dense undergrowth on 44.60 chs.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS	
	Knowing the line bet. secs. 2 and 13, will not close within limits, on the N. Bdy. of the Tp. I run, From the cor. of secs. 3 and 10.
	N. 0° 01' W., on a true line
	Bet. secs. 3 and 11
	Over rolling, rocky land, ascend through dense artemisia scrub oak, scattering cedar and pinon timber.
4.00	Top of ridge bears N.W. and S.E. Descend.
11.00	Hollow 50 ft. deep, course S.E. Ascend.
12.26	The closing cor. to secs. 2 and 11, heretofore described. Thence, N. 0° 01' W., bet. secs. 2 and 3.
15.00	Top of ridge, bears N.W. and S.E. Descend.
33.50	West fork of Ash Creek, 10 lks. wide, 4 ins. deep, in canon 100 ft. deep, course S.E. Over rolling land, ascend.
40.00	Set a trachyte stone 15x10x8 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.
79.00	Top of spur projects S.E. Descend.
92.28	Intersect N. Bdy. of Tp., 4.55 chs. west of the cor. of secs. 2-3-34 and 35, heretofore described. I destroy all marks on the cor. pertaining to T. 40 S. R. 13 W. and at point of intersection Set a sandstone 15x12x12 ins., 10 ins. in the ground for closing cor. to secs. 2 and 3, marked C.C. on S. face, with 2 grooves on E. and 4 grooves on W. faces, from which A cedar 8 ins. diam., bears S. 49° E., 38 lks. dist., marked T. 40 S. R. 13 W. S. 2 B. T. A cedar 6 ins. diam., bears S. 69° W., 46 lks. dist.,

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

marked T.40 S. R.13 W. S.3 B.T.

Land rolling.

Soil rocky 3rd.rate.

Timber scattering cedar and pinon.

Dense undergrowth on 92.28 chs.

December 6, 1902.

December 8; AT 8 a.m., 1.m.t. I set off $37^{\circ} 18' N.$ on lat.arc; $22^{\circ} 36' S.$ on decl.arc; and determine a true meridian with the solar, at the cor. of secs. 26-27-34 and 35, heretofore described.

The Eighth Standard Parallel South on South Bdy. of Secs. 31-32-33 and 34, being irregular both as regards course and distance, I establish a Sectional Correction Line as follows:

Knowing the Sectional Correction Line will not close within limits on the W. Bdy. of the Tp.

I run

West, on a sectional correction line,
Ret. secs. 27 and 34.

Over rocky land, descend through dense artemisia.

- 4.00 Begin abrupt descent over lava boulders.
- 19.00 Bottom of ravine 200 ft. deep, course S.
Ascend.
- 40.00 Set a trachyte stone 16x16x4 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
Pits impracticable.
- 61.20 Top of ridge, bears N.E. and S.W.
Begin abrupt descent over lava boulders.
- 71.50 Bottom of ravine, 150 ft. deep, course S.W.
Ascend.
- 73.40 Road from Salt Lake City to St. George, bears S.W. and N.E.
- 80.00 Set a trachyte stone 30x12x10 ins., 23 ins. in the

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

ground for cor. of secs. 27-28-33 and 34, marked with 1 notch on S. and 3 notches on E. edges, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Land mountainous.

Soil rocky 3rd. rate.

No timber.

Mountainous land on 80.00 chs.

West, on a sectional correction line,

Ret. secs. 28 and 33.

Over rocky land, ascend through dense artemisia.

1.00 Top of spur projects S.

Descend.

5.00 Bottom of ravine 75 ft. deep, course S.

Ascend.

11.00 Top of spur projects S.

Descend.

20.60 Bottom of ravine 100 ft. deep, course S.E.

Enter scattering cedar and pinon timber. Ascend.

40.00 Top of ridge, bears N.W. and S.E.

41.00 Set a sandstone 24x12x6 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which

A cedar 5 ins. diam., bears N. 33° W., 109 lks. dist., marked $\frac{1}{4}$ S. 28 B.T.

A cedar 6 ins. diam., bears S. 48° E., 162 lks. dist., marked $\frac{1}{4}$ S. 33 B.T.

53.00 Wash, 15x15 ft. course S.

80.00 Set a sandstone 15x10x10 ins., 10 ins. in the ground, for cor. of secs. 28-29-32 and 33, marked with 1 notch on S. and 4 notches on E. edges, from which

A cedar 6 ins. diam., bears N. 15° E., 85 lks. dist., marked T. 40 S. R. 13 W. S. 28 B.T.

A cedar 4 ins. diam., bears S. 81° E., 162 lks. dist., marked T. 40 S. R. 13 W. S. 33 B.T.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

No other trees within limits, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Land rolling.

Soil stony and sandy 3rd. rate.

Timber scattering cedar and pinon.

Dense undergrowth on 80.00 chs.

December 8: At this cor. I set off $22^{\circ} 40'$ S. on decl. arc; and at 11h. 52m., 3m., 1.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ} 18'$ N.

West, on a sectional correction line,

Bet. secs. 29 and 32.

Ascend over rolling sandy land, through dense artemisia and scattering cedar and pinon timber.

28.25 Top of ridge bears N. and S.

Descend.

38.00 Bottom of ravine, 100 ft. deep, course S.

Ascend.

40.00 Set a sandstone $15 \times 12 \times 4$ ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

Pits impracticable.

47.75 Top of ridge bears N. and S.

Descend.

50.50 Bottom of ravine 100 ft. deep, course S.

Ascend.

56.25 Top of spur projects S.

Begin abrupt descent.

67.00 Bottom of canon, 200 ft. deep, course S.E.

Abrupt ascent over sandstone.

75.00 Top of rocky ridge, bears N. 20° W. and S. 20° E.

Descend over sandstone.

80.00 Set a sandstone $18 \times 10 \times 8$ ins., 12 ins. in the ground,

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

for cor. of secs. 29-30-31 and 32, marked with 1 notch on S. and 5 notches on E. edges, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Land mountainous.

Soil sandy and rocky 3rd. and 4th. rate.

Timber scattering cedar and pinon.

Mountainous land on 80.00.

Knowing the line bet. secs. 30 and 31 will not close within limits, at the cor. of secs. 25-30-31 and 36, on the W. Bdy. of the Tp.

I run

West, on a sectional correction line,

Bet. secs. 30 and 31.

Descend over sandstone.

.50 Bottom of ravine, 200 ft. deep, course S.

Ascend over sandstone.

11.00 Top of rocky ridge, bears N. and S.

Begin abrupt descent over sandstone.

20.00 Bottom of ravine, 250 ft. deep, course S.

Ascend abruptly over sandstone.

38.00 Top of sandstone spur, 500 ft. high, projects S.

Abrupt descent over sandstone boulders.

40.00 Set a sandstone 24x10x8 ins., 18 ins. in the ground,

for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

Pits impracticable.

63.00 Bottom of ravine 100 ft. deep, course S.W.

Ascend.

67.00 Top of spur, projects S.W.

Descend.

71.00 Bottom of ravine, 100 ft. deep, course S.W.

Ascend.

83.30 Top of spur, projects S.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS	
	Descend.
87.20	Bottom of ravine, 75 ft. deep, course S.
	Ascend.
88.45	Intersect W. Bdy. of Tp. 62 lks. S. of the cor. of secs.
	25-30-31 and 36.
	On this cor. I destroy all marks pertaining to T.40 S.
	R.13 W. and at point of intersection
	Set a sandstone 30x12x6 ins., 23 ins. in the ground,
	for closing cor. to secs. 30 and 31, marked C.C. on E.
	face, with 1 groove on S. and 5 grooves on N. faces, and
	raise a mound of stone, 2 ft. base, 1½ ft. high, E. of cor.
	Pits impracticable.
	Land mountainous.
	Soil rocky 4th. rate.
	No timber.
	Mountainous land, on 88.45 chs.
	December 8, 1902.

	December 9: At 8 a.m., l.m.t., I set off 37° 18' W. on
	lat. arc; 22° 45' S. on decl. arc; and determine a true
	meridian, at the cor. of secs. 27-28-33 and 34,
	heretofore described.
	Knowing the line bet. secs. 33 and 34, will not close
	within limits on the Eighth Standard Parallel South,
	the S. Bdy. of this Tp.
	I run
	S. 0° 02' E., on a true line,
	Bet. secs. 33 and 34.
	Over stony land, descend through dense artemisia and
	scattering oak brush.
6.45	Road from Salt Lake City to St. George, bears N.E. and
	S.W.
22.00	Bottom of ravine 100 ft. deep, course S.E.
	Ascend over rolling land.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS
40.00

Set a sandstone 16x12x4 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

79.35

Intersect Eighth Standard Parallel South, 1.71 chs., S. $89^{\circ} 42' E.$ of the Standard Cor. for secs. 3-4-33 and 34, heretofore described.

I destroy all marks pertaining to secs. 33 and 34.

Set a sandstone 28x12x7 ins., 21 ins. in the ground, for closing cor. to secs. 33 and 34, marked C.C. on N. face, with 3 grooves on E. and W. faces, from which

A cedar 4 ins. diam., bears N. $81^{\circ} W.$, 1.47 chs. dist., marked T.40 S. R.13 W. S.33 B.T.

A cedar 4 ins. diam., bears N. $0^{\circ} 30' E.$, 47 lks. dist., marked T.40 S. R.13 W. S.34 B.T.

Land rolling.

Soil stony and sandy 3rd. rate.

Timber, a few scattering cedars.

Dense undergrowth on 79.35 chs.

From the cor. of secs. 27-28-33 and 34, heretofore described. I run

N. $0^{\circ} 02' W.$, bet. secs. 27 and 28.

Over stony land, ascend through dense artemisia and scattering cedar and pinon timber.

27.00

Top of ridge, bears N.E. and S.W.

Descend.

32.60

Bottom of ravine 75 ft. deep, course S.W.

Ascend.

40.00

Set a trachyte stone 15x8x8 ins., 10 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which

A cedar 12 ins. diam., bears S. $89^{\circ} W.$, 73 lks. dist., marked $\frac{1}{4}$ S.28 B.T.

A cedar 6 ins. diam., bears N. $13^{\circ} E.$, 80 lks. dist., marked $\frac{1}{4}$ S.27 B.T.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

- 57.50 Begin abrupt ascent over trachyte boulders.
- 64.25 Top of spur projecting E. from a high knoll, 4.00 chs. W. of line.
Descend abruptly.
- 76.00 Bottom of ravine 100 ft. deep, course S.E.
Ascend.
- 80.00 Set a trachyte stone 28x14x12 ins., 21 ins. in the ground, for cor. of secs. 21-22-27 and 28, marked with 3 notches on E. and 2 notches on S. edges, from which
A cedar 4 ins. diam., bears N. 16° E., 1.72 chs. dist., marked T.40 S. R.13 W. S.22 B.T.
A cedar 6 ins. diam., bears S. 24° E., 1.11 chs. dist., marked T.40 S. R.13 W. S.27 B.T.
A cedar 4 ins. diam., bears N. 23° W., 64 lks. dist., marked T.40 S. R.13 W. S.21 B.T.
No other trees within limits and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.
Pits impracticable.
Land rolling.
Soil stony 3rd. rate.
Timber scattering cedar and pinon.
Mountainous land on 80.00.
December 9: At this cor. I set off 22° 46' S. on decl. arc; and at 11h. 52m., a.m., observe the sun on the meridian, the resulting lat. is 37° 19' N.
-
- East on a random line, bet. secs. 22 and 27.
- 40.00 Set temp. ¼ sec. cor.
- 80.02 Intersect N. and S. line, 5 lks. N. of the cor. of secs. 22-23-26 and 27.
Thence I run
N. 89° 58' W., on a true line,
Bet. secs. 22 and 27.
Over lava boulders, descend through dense artemisia and scattering cedar and pinon timber.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS	
1.40	Stone fence, bears N. and S.
2.00	Leave rocky land, enter bottom land.
19.80	Wire fence, bears N.E. and S.W. Enter cultivated land.
31.40	Stone fence, bears N.E. and S.W.
31.85	Road from Salt Lake City to St. George, bears N.E. and S.W.
34.85	Wire fence bears N.W. and S.E. Enter orchard.
38.40	Wire fence bears N.E. and S.W. Leave cultivated land. From this point, the house of Peter Anderson, bears S., 7.00 chs. dist. Enter dense artemisia, oak brush, scattering cedar and pinon timber.
40.01	Set a sandstone 15x8x8 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which A cedar 4 ins. diam., bears S. 59° W. 10 lks. dist., marked $\frac{1}{4}$ S. 27 B.T. A cedar 5 ins. diam., bears N. 3° E., 1.41 chs. dist., marked $\frac{1}{4}$ S. 22 B.T.
79.00	Top of spur projects S. Descend.
80.02	The cor. of secs. 21-22-27 and 28. Land rolling. Soil, rocky 43.62 chs. 3rd. rate. loam 36.40 chs. 1st. rate. Timber, scattering cedar and pinon. Dense undergrowth on 61.42 chs.
	N. 0° 02' W., bet. secs. 21 and 22.
	Over rolling, sandy land, ascend through dense oak brush, artemisia and scattering scrub cedars.
40.00	Set a trachyte stone, 28x12x8 ins., 21 ins. in the

SUBDIVISIONS OF T.40 S.,R.13 W.,continued.

CHAINS

ground, for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$ on W.face, from which
 A cedar 3 ins.diam., bears N.67°W., 5 lks.dist.,
 marked $\frac{1}{4}$ S.21 B.T.
 A cedar 8 ins.diam., bears S.26°E., 20 lks.dist.,
 marked $\frac{1}{4}$ S.22 B.T.

50.00 Top of ridge bears N.W.and S.E.
 Descend.

80.00 Set a trachyte stone 36x12x3 ins., 27 ins.in the
 ground, for cor.od secs.15-16-21 and 22, marked
 40 S.on N.E., and
 13 W.on S.E.face; with 3 notches on S.and E.edges,
 from which
 A cedar 10 ins.diam., bears N.13° 30'E., 1.05 chs.dist.,
 marked T.40 S. R.13 W. S.15 B.T.
 A cedar 8 ins.diam., bears S.86°E., 46 lks.dist.,
 marked T.40 S. R.13 W. S. 22 B.T.
 A cedar 7 ins.diam., bears S.80°W., 59 lks.dist.,
 marked T.40 S. R.13 W. S.21 B.T.
 A cedar 4 ins.diam., bears N.5°W., 1.00 ch.dist.,
 marked T.40 S.R.13 W. S.16 B.T.
 Land rolling.
 Soil stony and sandy, 3rd.rate.
 Timber scattering scrub cedar.
 Dense undergrowth on 80.00 chs.

S.29° 58'E., on a random line, bet.secs.15 and 22.

40.00 Set temp. $\frac{1}{4}$ sec.cor.

80.06 Intersect N.and S.line, at the cor.of secs.
 14-15-22 and 23.

Thence I. run

N.89° 58'W., on a true line,
 Bet.secs.15 and 22.

Over rolling land, descend through dense artemisia,
 scrub oak and scattering cedars.

4.50 Road from Salt Lake City to St.George, bears W.W.and S.E

SUBDIVISIONS OF T.40 S., R.13 W., continued.

- CHAINS
15.00 Bottom of ravine 75 ft. deep, course S.E.
Ascend over rolling land.
- 40.03 Set a trachyte stone 14x12x6 ins., 10 ins. in the
ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face,
from which
A cedar 5 ins. diam., bears N. 45° E., 70 lks. dist.,
marked $\frac{1}{4}$ S. 15 B.T.
A cedar 3 ins. diam., bears S. 40° W., 70 lks. dist.,
marked $\frac{1}{4}$ S. 22 B.T.
- 80.06 The cor. of secs. 15-16-21 and 22.
Land rolling.
Soil sandy 3rd. rate.
Timber, scattering cedars.
Dense undergrowth on 80.06 chs.
December 9, 1902.
December 10: At 8 a.m., l.m.t., I set off 37° 20' N. on
lat. arc; 22° 48' S. on decl. arc; and determine a true
meridian with the solar, at the cor. of secs.
15-16-21 and 22.
Thence I run
N. 0° 02' W., bet. secs. 15 and 16.
Over rolling land, descend through dense artemisia,
scrub oak, scattering cedars.
- 28.00 Bottom of ravine 100 ft. deep, course S.E.
Ascend.
- 36.00 Top of spur projects W.
Descend.
- 40.00 Hollow 50 ft. deep, course S.W.
Set a trachyte stone 24x10x6 ins., 18 ins. in the
ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face,
from which
A cedar 4 ins. diam., bears East, 13 lks. dist., marked
 $\frac{1}{4}$ S. 15 B.T.
No other trees within limits, and raise a mound of
stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, W. of cor.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS	
	Pits impracticable.
	Ascend.
54.00	Top of spur, projects W. Descend along the west slope of a high ridge bearing N. and S.
80.00	Set a trachyte stone 24x10x6 ins., 18 ins. in the ground for cor. of secs. 9-10-15 and 16, marked with 4 notches on S. and 3 notches on E. edges, from which A pinon 10 ins. diam., bears N. 79° E., 68 lks. dist., marked T.40 S. R.13 W. S.10 B.T. A pinon 6 ins. diam., bears S 37° 30' E., 65 lks. dist., marked T.40 S. R.13 W. S.15 B.T. A cedar 3 ins. diam., bears S. 72° 30' W., 42 lks. dist., marked T.40 S. R.13 W. S. 16 B.T. A cedar 9 ins. diam., bears N. 4° 30' W., 1.08 chs. dist., marked T.40 S. R.13 W. S.9 B.T. Land mountainous. Soil sandy and rocky 3rd. rate. Timber scattering cedar and pinon. Mountainous land on 80.00 chs.
	—————
	S. 89° 58' E., on a random line, bet. secs. 10 and 15.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
30.08	Intersect N. and S. line, 3 lks. S. of the cor. of secs. 10-11-14 and 15. Thence I run N. 89° 59' W., on a true line, Ret. secs. 10 and 15. Over rolling land ascend through dense artemisia, oak and scattering cedar and pinon timber.
11.00	Top of spur projects S. Descend.
15.25	Bottom of ravine 75 ft. deep, course S. Ascend.
22.00	Wood road, bears N. and S.

SUBDIVISIONS OF T.40 S. R.13 W., continued.

CHAINS

- 40.04 Set a trachyte stone 24x14x5 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which a pinon 7 ins. diam., bears S. 39° E., 56 lks. dist., marked $\frac{1}{4}$ S. 15 B.T.
A cedar 3 ins. diam., bears N. 89° W., 10 lks. dist., marked $\frac{1}{4}$ S. 10 B.T.
- 46.70 Top of spur, 300 ft. above sec. cor., projects S.
Descend.
- 52.50 Hollow 50 ft. deep, course S.E.
Ascend.
- 62.00 Top of spur projects S.
Descend.
- 68.00 Head of hollow course S.E.
Ascend.
- 74.50 Top of ridge bears N. and S.
Descend.
- 80.08 The cor. of secs. 9-10-15 and 16.
Land mountainous.
Soil sandy and stony, 3rd. rate.
Timber scattering cedar and pinon.
Mountainous land on 80.08 chs.
-
- N. 0° 02' W., bet. secs. 9 and 10.
Over broken and rocky land, descend through dense oak brush and scattering cedar and pinon timber.
- 15.50 Bottom of ravine, 150 ft. below sec. cor., course S.W.
Ascend.
- 22.00 Top of spur projects S.W.
Descend.
- 24.25 Bottom of ravine, 100 ft. deep, course S.W.
Ascend.
- 40.00 Set a sandstone 28x18x12 ins., 21 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

SUBDIVISIONS OF T.40 S.,R.13 W.,continued.

CHAINS

Pits impracticable.

42.50 Top of spur projects S.W.

Descend.

49.50 Bottom of ravine,100 ft.deep,course S.W.

Ascend.

68.00 Top of spur ridge,bears N.E. and S.W.

Descend.

76.75 Bottom of ravine,150 ft.deep,course S.W.

Ascend.

80.00 Set a sandstone 18x10x8 ins.,12 ins.in the ground, for cor.of secs.3-4-9 and 10,marked with 5 notches on S.and 3 notches on E.edges,from which

A cedar 10 ins.diam.,bears N.42°E.,25 lks.dist., marked T.40 S. R.13 W. S.3 B.T.

A cedar 4 ins.diam.,bears S.60°W.,58 lks.dist., marked T.40 S. R.13 W. S.9 B.T.

No other trees within limits,and raise a mound of stone 2 ft.base,1 1/2 ft.high,W.of cor.

Pits impracticable.

Land mountainous.

Soil rocky 3rd.rate.

Timber,scattering cedar and pinon.

Mountainous land on 80.00 chs.

December 10: At this cor.I set off 23° 52'S.on decl. arc;and at 11h.53m.a.m.,1.m.t.,observe the sun on the meridian,the resulting lat,is 37° 22'N.

S.89° 59'E.,on a random line,bet,secs.3 and 10.

40.00 Set temp. 1/4 sec.cor.

80.04 Intersect N.and S.line,3 lks.S.of the cor.of secs. 3 and 10.

Thence I run

West, on a true line,

Bet.bech.3 and 10.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

- CHAINS
- Over rolling land, ascend through dense artemisia, oak and scattering cedar and pinon timber.
- 13.60 Wood road, bears N.E. and S.W.
- 40.02 Set a trachyte stone 15x10x6 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which a cedar 5 ins. diam., bears N.53° E., 1.02 chs. dist., marked $\frac{1}{4}$ S.3.B.T.
- No other trees within limits, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.
- Pits impracticable.
- 50.60 Wood road bears N.W. and S.E.
- 56.75 Top of ridge bears N. and S.
- Descend.
- 60.25 Bottom of ravine, 100 ft. deep, course S.E.
- Ascend.
- 68.50 Top of ridge, bears N.W. and S.E.
- Descend.
- 78.50 Bottom of ravine, 100 ft. deep, course S.W.
- Ascend.
- 80.04 The cor. of secs. 3-4-9 and 10.
- Land rolling.
- Soil rocky, 3rd. rate.
- Timber, scattering cedar and pinon.
- Dense undergrowth on 80.04 chs.
-
- Knowing the line bet. secs. 3 and 4 will not close within limits on the N. Bdy. of the Tp. I run
- N.0°02'W., on a true line, bet. secs. 3 and 4.
- Over rocky land, ascend through dense artemisia, oak and scattering cedar and pinon timber.
- 17.00 Top of ridge, bears N.W. and S.E.
- Descend.
- 38.00 Bottom of ravine, 100 ft. deep, course S.E.
- Ascend.

SUBDIVISIONS OF T.40 S. R.13 W., continued.

CHAINS

40.00 Set a sandstone 18x16x8 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

52.00 Top of ridge, bears N.W. and S.E.

Descend over rolling land.

92.30 Intersect N. Bdy. of Tp., 4.52 chs. W., of the cor. of secs. 3-4-33 and 34, heretofore described.

I destroy all marks on the cor. pertaining to T.40 S. R.13 W., and at the point of intersection

Set a trachyte stone 20x8x8 ins., 15 ins. in the ground, for closing cor. to secs. 3 and 4, marked C.C.

on S. and 3 grooves on E. and W. faces, from which a cedar 8 ins. diam., bears S. 46° E., 19 lks. dist., marked T.40 S. R.13 W. S 3 B.T.

A pinon 4 ins. diam., bears S' 8° W., 87 lks. dist., marked T.40 S. R.13 W. S.4 B.T.

Land rolling.

Soil rocky 3rd. rate.

Timber, scattering cedar and pinon.

Dense undergrowth on 92.30 chs.

December 10, 1902.

December 11: At 8 a.m., 1.m.t., I set off 37° 18' N. on lat. arc; 22° 54' S. on decl. arc; and determine a true meridian with the solar, at the cor. of secs.

28-29-32 and 33, heretofore described.

Knowing the line bet. secs. 32 and 33 will not close within limits on the Eighth Standard Parallel South, the S. Bdy. of the Tp.

I run

S. 0° 03' E., on a true line,

Bet. secs. 32 and 33.

Over rolling sandy land, descend through dense artemisia

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS	
29.60	Wood road, bears N.E. and S.W.
40.00	Set a sandstone 18x15x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which A cedar 3 ins. diam., bears N. 15° E., 85 lks. dist., marked $\frac{1}{4}$ S. 33 B.T. A cedar 3 ins. diam., bears N. 73° W., 1.33 chs. dist., marked $\frac{1}{4}$ S. 32 B.T.
60.00	Same wood road, bears N.W. and S.E.
69.00	Same wood road, bears N.E. and S.W.
78.90	Intersect Eighth Standard Parallel South, 3.47 chs. S. 89° 40' E., of the Standard Cor. for secs. 4-5-32 and 33, heretofore described. I destroy all marks pertaining to secs. 32 and 33. Set a sandstone 18x10x4 ins., 12 ins. in the ground, for closing cor. to secs. 32 and 33, marked C.C. on N., and 4 grooves on E. and 2 grooves on W. faces; and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor. Pits impracticable. Land rolling. Soil sandy 3rd. rate. Timber, scattering cedar and pinon. Dense undergrowth on 78.90 chs.
	From the cor. of secs. 28-29-32 and 33, heretofore described.
	I run
	N. 0° 03' W., bet. secs. 28 and 29.
	Over rolling, sandy land, ascend through dense artemisia and scattering cedar and pinon timber.
20.00	Wash, 10x10 ft., course S.E.
40.00	Set a sandstone 18x12x5 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which A pinon 6 ins. diam., bears S. 65° E., 48 lks. dist., marked $\frac{1}{4}$ S. 28 B.T. A pinon 3 ins. diam., bears S. 3° W., 1.84 chs. dist.,

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS	marked $\frac{1}{4}$ S.29 B.T.
46.25	Top of spur projects S.E. Descend .
76.00	Bottom of ravine, 100 ft. deep, course S.20°E. Ascend.
80.00	Set a sandstone 24x10x8 ins., 18 ins. in the ground., for cor. of secs. 20-21-28 and 29, marked with 2 notches on S. and 4 notches on E. edges, from which A cedar 8 ins. diam., bears N.89°W., 15 lks. dist., marked T.40 S.R.13 W.S.20 B.T. A cedar 10 ins. diam., bears S.14°E., 9 lks. dist., marked T.40 S. R.13 W. S.28 B.T. No other trees within limits and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable. Land rolling. Soil sandy 3rd. rate. Timber, scattering cedar and pinon. Dense undergrowth on 80.00 chs.
	—————
	East, on a random line, bet. secs. 21 and 28.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
79.96	Intersect N. and S. line, 3 lks. N. of the cor. of secs. 21-22-27 and 28. Thence I run N.89° 59' W., on a true line, Bet. secs. 21 and 28. Over rocky land, descend through dense artemisia, oak scattering cedar and pinon timber.
4.00	Bottom of ravine, 100 ft. deep, course S. Ascend.
10.60	Top of ridge bears N. and S. Descend.
15.50	Bottom of ravine 100 ft. deep, course S. Ascend.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

- 22.00 Top of spur projects S.
Descend.
- 35.00 Hollow 50 ft. deep, course S.
Ascend.
- 39.98 Set a trachyte stone 16x8x4 ins., 11 ins. in the ground for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which
A cedar 9 ins. diam., bears S. 4° W., 1.21 lks. dist., marked $\frac{1}{4}$ S. 28 B.T.
A cedar 6 ins. diam., bears N. 24° W., 1.74 lks. dist., marked $\frac{1}{4}$ S. 21 B.T.
- 47.00 Top of ridge bears N. and S.
Descend.
- 53.00 Bottom of ravine, 150 ft. deep, course S.
Ascend.
- 57.00 Top of ridge bears N. and S.
Descend.
- 66.50 Bottom of ravine 75 ft. deep, course S.
Ascend.
- 72.00 Top of ridge bears N. and S.
Descend.
- 75.50 Bottom of ravine 100 ft. deep, course S.
Ascend.
- 78.00 Top of spur projects S.
Descend.
- 79.96 The cor. of secs. 20-21-28 and 29.
Land mountainous.
Soil rocky 3rd. rate.
Timber, scattering cedar and pinon.
Mountainous land on 79.96 chs.
December 11: At this cor. I set off 22° 57' S. on decl. arc; and at 11h. 53m. a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37° 19' N.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

N.0° 03'W., bet. secs. 20 and 21.

Over rocky land, ascend through scattering cedar and pinon timber.

40.00 Falls on a sandstone ledge, I cut a cross, x, at exact point for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. side of cross and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor. Pits impracticable.

45.00 Top of mountain ridge, 800 ft. above sec. cor., bears E. and W.

Begin abrupt descent.

58.00 Bottom of ravine, 300 ft. below top of ridgecourse E. Ascend.

64.00 Top of spur projects S.E. 7

Descend.

69.50 Bottom of ravine, 100 ft. deep, course S, E.

Ascend.

80.00 Top of ridge, bears N.W. and S.E.

Set a trachyte stone 18x12x7 ins., 12 ins. in the ground, for cor. of secs. 16-17-20 and 21, marked with 3 notches on S. and 4 notches on E. edges, from which a cedar 5 ins. diam., bears N.24°E., 27 lks. dist., marked T.40 S. R.13 W. S.16 B.T.

A cedar 4 ins. diam., bears S.40°E., 15 lks. dist., marked T.40 S. R.13 W. S.21 B.T.

A cedar 3 ins. diam. bears S.23° W., 5 lks. dist., marked T.40 S. R.13 W. S.20 B.T.

A cedar 9 ins. diam., bears N.16° W., 18 lks. dist., marked T.40 S. R.13 W. S.17 B.T.

Land mountainous.

Soil rocky 3rd. rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.00 chs.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS	
	S.89° 59'E., on a random line, bet. secs. 16 and 21.
40.00	Set temp. $\frac{1}{4}$ sec. cor.'
80.04	Intersect N. and S. line, 7 lks. S. of the cor' of secs. 15-16-21 and 22.
	Thence I run
	S.89° 58'W., on a true line,
	Bet. secs. 16 and 21.
	Over rocky land, ascend through dense artemisia, oak, laurel, scattering cedar and pinon timber.
40.02	Set a trachyte stone 24x15x7 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which
	A cedar 4 ins. diam., bears N.25°E., 14 lks. dist., marked $\frac{1}{4}$ S.16 B.T.
	A cedar 8 ins. diam., bears S.68°E., 16 lks. dist., marked $\frac{1}{4}$ S.21 B.T.
55.00	Top of ridge, bears N.20° W. and S.20°E.
	Descend.
67.50	Bottom of ravine. 150 ft. deep, course S.E.
	Ascend.
80.04	Top of ridge, bears N.W. and S.E.
	The cor. of secs. 16-17-20 and 21.
	Land mountainous.
	Soil, rocky, 4th. rate.
	Timber, scattering cedar and pinon.
	Mountainous land or dense undergrowth on 80.04 chs.
	<hr/>
	N.0° 03'W., bet. secs. 16 and 17.
	Over rocky land, descend through dense artemisia, oak and scattering cedar and pinon timber.
14.00	Bottom of ravine 200 ft. deep, course S.E.
	Ascend.
40.00	Set sandstone 24x12x3 ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which

SUBDIVISIONS OF T.40 S. R.13 W., continued.

CHAINS

A cedar 6 ins.diam., bears S.16°E., 25 lks.dist., marked 1/4 S.16 B.T.

No other trees within limits, and raise a mound of stone 2ft.base, 1 1/2 ft.high, W.of cor.

Pits impracticable.

43.00 Top of spur, 300 ft.above bottom of ravine, projects W.

A high sandstone knoll, bears E., 8.00 chs.dist.

77.00 Bottom of ravine, 150 ft.deep, course S.E. Ascend.

80.00 Set a sandstone 18x12x8 ins., 12 ins.in the ground, for cor.of secs.8-9-16 and 17, marked with 4 notches on S.and E.edges, and raise a mound of stone 2 ft. base, 1 1/2 ft.high, W.of cor.

Pits impracticable.

Land mountainous.

Soil rocky 4th.rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.00 chs.

December 11, 1902.

December 12: At 8 a.m., 1.m.t., I set off 37° 21' N.on lat.arc; 22° 59' S.on decl.arc; and determine a true meridian with the solar, at the cor.of secs. 8-9-16 and 17.

Thence I run

N.89° 58' E., on a random line,

Bet.secs.9 and 16.

40.00 Set temp. 1/2 sec.cor.

80.10 Intersect N.and S.line, 3 lks.S.of the cor.of secs. 9-10-15 and 16.

Thence I run

S.89° 57' W., on a true line,

Bet.secs.9 and 16.

SUBDIVISIONS OF T.40 S. R.13 W., continued.

CHAINS	
	Descend over rocky land, through dense artemisia, scattering cedar and pinon timber.
14.30	Bottom of ravine, 300 ft. below sec. cor., course S. Ascend.
25.50	Top of spur, projects S. Descend.
33.90	Bottom of canon, 800 ft. deep, course S. Ascend.
40.05	Set a sandstone 20x12x4 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
56.00	Top of ridge, bears N.E. and S.W. Descend.
66.50	Bottom of ravine, 150 ft. deep, course N.E. Ascend.
75.00	Top of spur, projects S. Descend.
80.10	The cor. of secs. 8-9-16 and 17. Land mountainous. Soil rocky 3rd. rate. Timber, scattering cedar and pinon. Mountainous land on 80.10 chs.
	N.0°03'W., bet. secs. 8 and 9.
	Over rocky land, ascend through scattering cedar and pinon timber.
9.50	Top of ridge, bears E. and W. Descend.
30.00	Bottom of ravine, 150 ft. deep, course E. Ascend.
36.00	Top of spur, projects E. Descend.
39.50	Hollow, 50 ft. deep, course E. Ascend.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

- 40.00 Set a sandstone 12x14x4 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which
A pine, 12 ins. diam., bears S. 38° W., 65 lks. dist., marked $\frac{1}{4}$ S. 8 B.T.
A cedar 6 ins. diam., bears N. 40° E., 13 lks. dist., marked $\frac{1}{4}$ S. 9 B.T.
- 44.00 Top of spur, projects E.
Descend.
- 56.00 Bottom of ravine, 200 ft. deep, course E.
Ascend.
- 58.25 Top of spur projects S.W.
Descend.
- 69.00 Ascend.
- 73.75 Top of ridge, N.W. and S.E.
Begin abrupt descent over broken sandstone ledges, bearing N.W. and S.E.
- 80.00 Set a sand stone 18x10x10 ins., 12 ins. in the ground, for cor. of secs. 4-5-8 and 9, marked with 5 notches on S. and 4 notches on E. edges, from which
A cedar 3 ins. diam., bears N. 73° 30' E., 33 lks. dist., marked T.40 S. R.13 W. S.4 B.T.
A cedar 7 ins. diam., bears S. 71° E., 30 lks. dist., marked T.40 S. R.13 W. S.9 B.T.
A cedar 7 ins. diam., bears S. 24° W., 48 lks. dist., marked T.40 S. R.13 W. S.8 B.T.
A cedar 6 ins. diam., bears N. 7° W., 48 lks. dist., marked T.40 S. R.13 W. S.5 B.T.
Land mountainous.
Soil rocky, 3rd. and 4th. rate.
Timber, scattering cedar and pinon.
Mountainous land on 80.00
December 12: At this cor. I set off 22° 02' S. on decl. arc; and at 11h. 54m. a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is 37° 22' N.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

- CHAINS: N.89° 57'E., on a random line, bet. secs. 4 and 9.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.12 Intersect N. and S. line, 3 lks. N. of the cor. of secs. 3-4-9 and 10.
- Thence I run
- S.89° 58'W., on a true line,
Bst. secs. 4 and 9.
- Over rocky land, ascend ^{through} scattering cedar and pinon timber.
- 1.75 Top of sandstone spur, projects S.
Descend.
- 7.00 Bottom of ravine, 200 ft. deep, course S.
Ascend.
- 23.00 Top of spur, projects S.
Descend.
- 28.00 Bottom of ravine, 75 ft. deep, course S.
Ascend.
- 38.00 Top of ridge, bears N. and S.
- 40.06 Set a trachyte stone 18x12x6 ins., 12 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which
A cedar 5 ins. diam., bears S. 17°W., 23 lks. dist., marked $\frac{1}{4}$ S. 9 B.T.
A cedar 12 ins. diam., bears N. 70°W., 74 lks. dist., marked $\frac{1}{4}$ S. 4 B.T.
- 54.35 Bottom of ravine, 250 ft. below top of ridge, course S.
Ascend.
- 62.00 Top of spur, projects S.
Descend.
- 72.25 Bottom of canon, 300 ft. deep, course S.
Ascend.
- 80.12 The cor. of secs. 4-5-8 and 9.
Land mountainous.
Soil rocky, 3rd. and 4th. rate.
Timber, scattering cedar and pinon.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

Mountainous land on 80.12 chs.

Knowing the line bet. secs. 4 and 5 will not close within limits, on the N. Bdy. of the Tp.

I run

N. $0^{\circ} 03' W.$, on a true line,

Bet. secs. 4 and 5.

Over rocky land, descend through scattering cedar and pinon timber.

19.50 Bottom of canon, 300 ft. deep, course S.E.

Begin abrupt ascent.

40.00 Top of ridge, 400 ft. above bottom of canon, bears

N.W. and S.E.

Set a sandstone $24 \times 12 \times 8$ ins., 18 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Descend along steep E. slope.

55.00 Begin ascent.

92.36 Intersect N. Bdy. of Tp., 4.50 chs. W. of the cor. of secs. 4-5-32 and 33, heretofore described.

I destroy all marks on the cor. pertaining to T.40 S. R.13 W.

Set a trachyte stone $24 \times 10 \times 4$ ins., 18 ins. in the ground, for closing cor. to secs. 4 and 5, marked C.C. on S., with 4 grooves on E. and 2 grooves on W. faces, from which

A cedar 3 ins. diam., bears $S. 57^{\circ} E.$, 7 lks. dist., marked T.40 S. R.13 W. S. 4 B.T.

A cedar 8 ins. diam., bears $S. 74^{\circ} W.$, 28 lks. dist., marked T.40 S. R.13 W. S. 5 B.T.

Land mountainous.

Soil, rocky 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land on 92.36 chs.

December 12, 1902.

SUBDIVISIONS OF T.40 S. R.13 W., continued.

CHAINS

December 13: At 8 a.m., 1.m.t., I set off $37^{\circ} 18' N$. on lat.arc; $23^{\circ} 03' S$. on decl.arc; and determine a true meridian with the solar, at the cor. of secs. 29-30-31 and 32, heretofore described.

Knowing the line bet. secs. 31 and 32 will not close within limits on the Eighth Standard Parallel South, the S.Bdy. of the Tp.

I. run

$S. 0^{\circ} 03' E.$, on a true line,

Bet. secs. 31 and 32.

Over rocky land, descend through scattering cedar and pinon timber.

3.00 Bottom of ravine, 200 ft. deep, course S.E.

Ascend.

7.00 Top of rocky spur, projects E.

Descend.

29.00 Bottom of ravine, 100 ft. deep, course S.W.

Ascend.

34.00 Top of rocky spur, projects W.

Descend.

39.50 Bottom of same ravine, 20 ft. deep, course S.E.

Leave rocky land.

Over sandy land, ascend gradually over rolling land through dense artemisia.

40.00 Set a sandstone $20 \times 12 \times 6$ ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, from which

A cedar 10 ins. diam., bears $N. 35^{\circ} E.$, 49 lks. dist., marked $\frac{1}{4}$ S. 32 B.T.

No other trees within limits and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

73.55 Intersect Eighth Standard Parallel South, 5.79 chs., $S. 89^{\circ} 36' E.$, of the Standard Cor. for secs. 5-6-31 and 32, heretofore described.

I destroy all marks pertaining to secs. 31 and 32.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

Set a sandstone 12x12x10 ins., 8 ins. in the ground, for closing cor. to secs. 31 and 32, marked C.C. on N., with 5 grooves on E. and 1 groove on W. faces; and raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor.

Pits impracticable.

Land, mountainous and rolling.

Soil, rocky and sandy 3rd. rate.

Timber, cedar and pinon.

Mountainous land or dense undergrowth on 78.55 chs.

From the cor. of secs. 29-30-31 and 32, heretofore described.

I run

N.0° 03' W., bet. secs. 29 and 30.

Over rocky land, descend through scattering cedar and pinon timber.

.75 Bottom of ravine 200 ft. deep, course S.W.

Ascend.

4.00 Top of spur, projects E.

Descend.

11.00 Bottom of ravine 100 ft. deep, course S.E.

Ascend.

19.50 Top of ridge, bears N.W. and S.E.

Descend.

40.00 Set a sandstone 18x10x8 ins., 12 ins. in the ground, for ¼ sec. cor., marked ¼ on W. face, and raise a mound of stone, 2 ft. base, 1½ ft. high, W. of cor.

Pits impracticable.

40.50 Bottom of ravine, 100 ft. deep, course S.E.

Ascend, over broken sandstone ledges.

80.00 Set trachyte stone 15x9x6 ins., 10 ins. in the ground, for cor. of secs. 19-20-29 and 30, marked with 2 notches on S. and 5 notches on E. edges, from which a cedar 3 ins. diam., bears N.70°E., 10 lks. dist., marked T.40 S. R.13 W. S.20 B.T.

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SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

- A pinon 3 ins. diam., bears S. 19° E., 18 lks. dist., marked T.40 S. R.13 W. S.29 R.T.
- A cedar 8 ins. diam., bears S. 40° 30' W., 38 lks. dist., marked T.40 S. R.13 W. S.30 R.T.
- A cedar 3 ins. diam., bears N. 40° 30' W., 45 lks. dist., marked T.40 S. R.13 W. S.19 R.T.

Land mountainous.

Soil rocky 3rd. rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.00 chs.

December 13: At this cor. I set off 23° 07' S. on decl. arc; and at 11h. 54m. A.M., 1.M.T., observe the sun on the meridian, the resulting lat. is 37° 19' N.

East, on a random line, bet. secn. 20 and 29.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.00 Intersect N. and S. line, 7 lks. S. of the cor. of secn. 20-21-28 and 29.

Thence I run

S. 88° 57' W., on a true line,

Bet. secn. 20 and 29.

Over rocky land descend through scattering cedar and pinon timber.

3.00 Bottom of ravine, 100 ft. deep, course S.

Ascend.

38.00 Top of ridge, bears N.W. and S.E.

Descend.

40.04 Set a sandstone 16x12x5 ins., 11 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base $\frac{1}{4}$ ft. high, E. of cor.

File impracticable.

55.00 Head of ravine, course S.W.

Ascend.

80.00 The cor. of secn. 10-20-29 and 30, 600 ft. above the cor. of secn. 20-21-28 and 29.

SUBDIVISIONS OF T.40 S. R.13 W., continued.

CHAINS

Land mountainous.

Soil, rocky 3rd. rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.08 chs.

Knowing the line bet. secs. 19 and 30 will not close within limits on the W. Bdy. of the Tp.

I run

West, on a true line, bet. secs. 19 and 30.

Over rocky land, ascend through scattering cedar and pinon timber.

2.00 Top of ridge, bears N.E. and S.W.

Descend over sandstone ledges, bearing N.E. and S.W.

27.00 Bottom of canon, 500 ft. deep, course S.W.

Ascend over sandstone ledges, bearing N.E. and S.W.

40.00 Point for cor. falls on sandstone ledge, I cut a cross, X, at exact point for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. side of cross, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

Pits impracticable.

51.00 Top of ridge, bears N. and S.

Descend abruptly over rocky land.

70.50 Bottom of ravine, 150 ft. deep, course S.

Ascend.

82.36 Intersect W. Bdy. of Tp., 65 lks. S. of the cor. of secs. 19-24-25 and 30, heretofore described.

I destroy all marks pertaining to T.40 S. R.13 W.

Set a sandstone 18x15x4 ins., 12 ins. in the ground, for closing cor. to secs. 19 and 30, marked C.C. on E., with 2 grooves on S. and 4 grooves on N. faces, from which

A pinon 3 ins. diam., bears N. 70° E., 70 lks. dist., marked T.40 S. R.13 W. S.19 B.T.

A pinon 3 ins. diam., bears S. 22° E., 24 lks. dist., marked T.40 S. R.13 W. S.30 B.T.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS.

Land mountainous.

Soil, rocky, 4th. rate.

Timber, scattering cedar and pinon.

Mountainous land on 88.36 chs.

December 13, 1902.

December 14: At 8 a.m., 1 m.t., I set off $37^{\circ} 19' N.$ on lat. arc; $23^{\circ} 07' S.$ on decl. arc; and determine a true meridian with the solar at the cor. of secs.

19-20-29 and 30.

Thence I run

$N. 0^{\circ} 03' W.$, bet. secs. 19 and 20.

Over rocky land, ascend through scattering cedar and pinon timber.

- 1.50 Top of ridge, bears N.E. and S.W.
Descend.
- 34.00 Bottom of ravine, 150 ft. deep, course S.W.
Ascend.
- 40.00 Set a sandstone $15 \times 12 \times 8$ ins., 10 ins. in the ground., for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
Pits impracticable.
- 53.00 Top of ridge, bears N.W. and S.E.
Descend.
- 62.00 Bottom of ravine, 100 ft. deep, course E.
Ascend.
- 76.50 Top of spur, projects S.E.
Descend.
- 80.00 Set a shale stone $15 \times 10 \times 5$ ins., 10 ins. in the ground, for cor. of secs. 17-18-19 and 20, marked with 3 notches on S. and 5 notches on E. edges, from which
A pinon 3 ins. diam., bears $N. 47^{\circ} E.$, 24 lks. dist., marked T.40 S. R.13 W. S.17 N.E.
A cedar 4 ins. diam., bears $S. 16^{\circ} E.$, 50 lks. dist., marked T.40 S. R.13 W. S.20 N.E.

SUBDIVISIONS OF T.40 S. R.13 W., continued.

CHAINS

A cedar 4 ins.diam., bears S.66° 30'W., 23 lks.dist.,
marked T.40 S., R.13 W.S.19 B.T.

A cedar 4 ins.diam., bears N.77°W., 34 lks.dist.,
marked T.40 S.R.13 W. S.18 B.T.

Land mountainous.

Soil, rocky 3rd.rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.00 chs.

N.89° 57'E., on a random line, bet.secs.17 and 20.

40.00 Set temp. $\frac{1}{4}$ sec.cor.

80.10 Intersect N.and S.line, 5 lks.N.of the cor.of secs.
16-17-20 and 21.

Thence I run

S.89° 59'W., on a true line,

Bet.secs.17 and 20.

Over rocky land, descend through dense artemisia, oak,
laurel, scattering cedar and pinon timber,

5.25 Bottom of ravine, 150 ft.deep, course S.E.

Ascend.

14.50 Top of ridge, bears N.W.and S.E.

Descend.

17.50 Head of ravine, course S.E.

Ascend.

22.00 Top of spur, projects S.

Descend.

29.50 Bottom of ravine, 150 ft.deep, course S.

35.00 Top of spur, projects S.

Descend.

40.05 Set a sandstone 15x12x6 ins., 10 ins.in the ground,
for $\frac{1}{4}$ sec.cor., marked $\frac{1}{4}$.on N.face, from which

A pinon 5 ins.diam., bears N.85°E., 16 lks.dist.,
marked $\frac{1}{4}$ S.17 B.T.

A pinon 3 ins.diam., bears S.38°E., 37 lks.dist.,

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS	
	marked $\frac{1}{4}$ S.20 B.T.
41.00	Bottom of canon, 250 ft. deep, course S.E. Ascend.
55.00	Top of spur, projects S.E. Descend.
72.00	Bottom of ravine, 100 ft. deep, course S.E. Ascend.
80.10	The cor. of secs. 17-18-19 and 20. Land mountainous. Soil rocky, 3rd. rate. Timber, scattering cedar and pinon. Mountainous land on 80.10 chs. December 14: At this cor. I set off $23^{\circ} 11' S.$ on decl. arc; and at 11h. 54m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ} 20' N.$
	—————
	Knowing the line bet. secs. 18 and 19 will not close within limits on the W. Bdy. of the Tp. I run West, on a true line, bet. secs. 18 and 19 Over rocky land, ascend through dense artemisia, oak, laurel, scattering cedar and pinon timber.
11.30	Top of ridge, bears N.W. and S.E. Descend.
16.00	Bottom of ravine 150 ft. deep, course S. Ascend.
22.65	Top of ridge, bears N. and S. Descend.
31.00	Bottom of ravine, 200 ft. deep, course S. Ascend.
40.00	Set a sandstone 14x10x4 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, from which A cedar 7 ins. diam., bears $N. 50^{\circ} E.$, 23 lks. dist., marked $\frac{1}{4}$ S.18 B.T. A pinon 3 ins. diam., bears $S. 15^{\circ} W.$, 29 lks. dist.,

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS	
	marked $\frac{1}{4}$ S.19 B.T.
50.50	Top of ridge, bears N. and S. Descend.
73.00	Bottom of ravine, 150 ft. deep, course S. Ascend.
83.00	Top of spur, projects S. Descend.
86.00	Bottom of ravine, 100 ft. deep, course S. Ascend.
88.24	Intersect W. Bdy. of Tp., 62 lks. S. of the cor. of secs. 13-18-19 and 24, heretofore described. I destroy all marks pertaining to T.40 S., R.13 W. Point for cor. falls on a sandstone boulder 10x8x6 ft. above ground, I cut a cross, X, at exact point for closing cor. to secs. 18 and 19, marked CC. on E., with 3 grooves on N. and S. sides of cross, from which A pinon 3 ins. diam., bears N. 68° E., 28 lks. dist., marked T.40 S. R.13 W. S.18 B.T. A pinon 4 ins. diam., bears S. 52° E., 53 lks. dist., marked T.40 S. R.13 W. S.19 B.T. Land mountainous. Soil, rocky 3rd. rate. Timber, scattering cedar and pinon. Mountainous land on 88.24 chs.
	N. 0° 03' W., bet. secs. 17 and 18. Over rocky land, descend through scattering cedar and pinon timber.
7.00	Bottom of ravine, 100 ft. deep, course S.E. Ascend.
20.00	Top of ridge, bears N.W. and S.E. Descend.
34.00	Bottom of ravine, 100 ft. deep, course S.E. Ascend.
40.00	Set a sandstone 18x14x8 ins., 12 ins. in the ground,

SUBDIVISIONS OF T.40 S., R.13 W., continued.

- CHAINS for $\frac{1}{2}$ sec. cor., marked $\frac{1}{2}$ on W. face, from which
- A pinon 6 ins. diam., bears S. 5° W., 85 lks. dist., marked $\frac{1}{4}$ S.13 B.T.
- A cedar 5 ins. diam., bears S. 2° E., 30 lks. dist., marked $\frac{1}{2}$ S.17 B.T.
- 44.00 Top of ridge, bears N.W. and S.E.
Descend.
- 66.00 Bottom of ravine, 75 ft. deep, course S.E.
Ascend.
- 69.50 Top of ridge, bears N.W. and S.E.
Descend.
- 80.00 Set a trachyte stone 18x10x 6 ins., 12 ins. in the ground, for cor. of secs. 7-8-17 and 18, marked with 4 notches on S. and 5 notches on E. edges, from which
- A pinon 5 ins. diam., bears S. 7° W., 17 lks. dist., marked T.40 S., R.13 W.18 B.T.
- No other trees within limits, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
- Pits impracticable.
Land mountainous. Soil, rocky 3rd. rate.
Timber, cedar and pinon.
Mountainous land on 80.00 chs.
December 14, 1902.
-
- December 15: At 8 a.m., 1.m.t., I set off $37^{\circ} 21'$ N. on lat. arc; $23^{\circ} 11'$ S. on decl. arc; and determine a true meridian with the solar, at the cor. of secs. 7-8-17 and 18.
- Thence I run
- N. $89^{\circ} 59'$ E., on a random line,
Bet. secs. 8 and 17.
- 40.00 Set temp. $\frac{1}{4}$ sec. cor.
- 80.08 Intersect N. and S. line, 9 lks. N. of the cor. of secs. 8-9-16 and 17.
- Thence I run
- N. $89^{\circ} 57'$ W., on a true line,
Bet. secs. 8 and 17.
- Over rocky land, descend through scattering cedar and

SUBDIVISIONS OF T.40 S. R.13 W., continued.

CHAINS.	
	pinon timber.
3.00	Bottom of ravine, 150 ft. deep, course S.E. Ascend.
29.00	Top of spur ridge, bears N.W. and S.E. Descend.
40.04	Set a trachyte stone, 20x12x9 ins., 15 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
41.50	Bottom of ravine, 200 ft. deep, course S.E. Ascend.
60.00	Top of spur, projects N. Descend over broken land.
80.08	The cor. of secs. 7-8-17 and 18. Land mountainous. Soil, rocky 3rd. rate. Timber, scattering cedar and pinon. Mountainous land on 80.08 chs.
<hr/> <p>Knowing the line bet. secs. 7 and 18 will not close within limits on the W. Bdy. of the Tp. I run West, on a true line, Bet. secs. 7 and 18. Over rocky land, ascend through scattering cedar and pinon.</p>	
8.50	Top of ridge, bears N.W. and S.E. Descend.
37.50	Bottom of ravine, 150 ft. deep, course S. 15° E. Ascend.
40.00	Set a sandstone 15x12x8 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor. Pits impracticable.
53.00	Top of spur ridge, bears N.W. and S.E.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

- Descend over rolling land, through dense artemisia, oak and laurel.
- 83.15 Intersect W. Bdy. of Tp. 63 lks. S. of the cor. of secs. 7-12-13 and 18, heretofore described.
- I destroy all marks on the cor. pertaining to T.40 S. R.13 W.
- Set a sandstone 15 x 12 x 6 ins., 10 ins. in the ground, for closing cor. to secs. 7 and 18, marked C.C. on E., with 4 grooves on S. and 2 grooves on N. faces, from which
- A pinon 4 ins. diam., bears N. 16° E., 20 lks. dist., marked T.40 S. R.13 W. S.7 B.T.
- A pinon 8 ins. diam., bears S. 63° E., 17 lks. dist., marked T.40 S. R.13 W. S.18 B.T.
- Land mountainous.
- Soil rocky 3rd. rate.
- Timber scattering cedar and pinon.
- Mountainous land on 88.15 chs.
- December 15: At this cor. I set off 23° 14' S. on decl. arc; and at 11h. 55m. a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is 37° 21' N.
-
- N. 0° 03' W., bet. secs. 7 and 8.
- Over rocky land, descend through scattering cedar and pinon timber.
- 3.25 Bottom of ravine, 200 ft. deep, course S.E.
- Ascend abruptly over broken land.
- 40.00 Set a sandstone 14x8x6 ins., 10 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on W. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.
- Pit: impracticable.
- 58.00 Top of mountain ridge, 800 ft. above bottom of ravine, bears N.W. and S.E.
- Descend.
- 80.00 Set a sandstone 16x2x2 ins., 11 ins. in the ground,

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

for cor. of secs. 5-6-7 and 8, marked with 5 notches on S. and E. edges, and raise a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, W. of cor.

Pits impracticable.

Land mountainous.

Soil rocky 3rd. rate.

Timber, scattering cedar and pinon.

Mountainous land on 80.00 chs.

December 15, 1902.

December 16: At 8 a.m., 1.m.t. I set off $23^{\circ} 14'$ S. on decl. arc; $37^{\circ} 22'$ N. on lat. arc; and determine a true meridian with the solar, at the cor. of secs.

5-6-7 and 8.

Thence I run

S. $89^{\circ} 57'$ E., on a random line, bet. secs. 5 and 8.

40.00 Set temp. $\frac{1}{4}$ sec. cor.

80.14 Intersect N. and S. line, 3 lks. N. of the cor. of secs. 4-5-8 and 9.

Thence I run

N. $89^{\circ} 56'$ W., on a true line,

bet. secs. 5 and 8.

Over rocky land, ascend through scattering cedar and pinon timber.

7.00 Top of ridge, bears N.W. and S.E.

Descend.

20.50 Bottom of ravine, 150 ft. deep, course S.E.

Ascend.

38.00 Top of spur, 600 ft. above bottom of ravine, projects S.

Descend.

40.07 Set a sandstone $16 \times 12 \times 8$ ins., 11 ins. in the ground,

for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

Pits impracticable.

SUBDIVISIONS OF T.40 S., R.13 W., continued.

CHAINS

47.50 Bottom of ravine, 150 ft. deep, course S.E.
Ascend.

57.00 Top of spur, projects S.E.
Descend.

75.00 Bottom of ravine, 200 ft. deep, course S.E.
Ascend.

80.14 The corner of secs. 5-6-7 and 8.
Land mountainous.
Soil, rocky 3rd. rate.
Timber, scattering cedar and pinon.
Mountainous land on 80.14 chs.

Knowing the line bet. secs. 6 and 7 will not close
within limits on the W. Bdy. of the Tp.

I run

West, on a true line,

Bet. secs. 6 and 7.

Over rocky land, ascend through scattering cedar and
pinon timber.

20.00 Top of mountain ridge, 400 ft. above sec. cor.,
bears N.W. and S.E.
Descend.

Leave timber, enter dense artemisia, oak, laurel and
scattering mahoganies.

40.00 Set a trachyte stone 18x12x8 ins., 12 ins. in the
ground, for $\frac{1}{4}$ sec. cor., marked $\frac{1}{4}$ on N. face, and raise
a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
Pits impracticable.

51.00 Bottom of ravine, 100 ft. deep, course S.
Ascend.

65.00 Top of spur, projects S.
Descend.

79.00 Spring branch, 2 lks. wide, in bottom of canon, 600 ft.
deep, course S.E.
Ascend.

SUBDIVISIONS OF T.40 S., 13 W., continued.

CHAINS

88.04 Intersect W.Bdy.of Tp., 65 lks.S.of the cor.of secs. 1-6-7 and 12, heretofore described.

I destroy all marks on the cor.pertaining to T.40 S. R.13 W.

Set a trachyte stone 15x12x6 ins., 10 ins.in the ground for closing cor.to secs.6 and 7, marked.C.C.on E., with 5 grooves on S.and 1 groove on N.faces, and raise a mound of stone 2 ft.base, 1 1/2 ft.high, E.of cor.

Pits impracticable.

Land mountainous.

Soil, rocky 3rd.rate.

Timber, scattering cedar and pinon.

Mountainous land on 88.04 chs.

December 16: At this cor.I set off 23° 17'S.on decl. arc; and at 11h.55m.a.m., 1.m.t., observe the sun on the meridian, the resulting lat.is 37° 22'N.

Knowing the line bet.secs.5 and 6 will not close within limits on the N.Bdy.of the Tp.

I run

N.0° 03'W., on a true line,

Bet.secs.5 and 6.

Over rocky land, descend through scattering cedar and pinon timber.

4.50 Bottom of ravine, 200 ft.deep, course S.E.

Ascend.

40.00 Top of ridge, bears E.and W.

Set a trachyte stone 18x8x8 ins., 12 ins.in the ground, for 1/4 sec.cor., marked 1/4 on W.face, and raise a mound of stone 2 ft.base, 1 1/2 ft.high, W.of cor.

Pits impracticable.

Begin abrupt descent.

71.50 Bottom of canon, 500 ft.deep, course S.E.

Ascend abruptly.

SUBDIVISIONS OF T.40 S., R.13 W., concluded.

CHAINS

- 91.80 Top of ridge, bears N.W. and S.E.
Descend.
- 92.37 Intersect N. Bdy. of Tp. 4.53 chs. W. of the cor. of secs. 5-6-31 and 32, heretofore described.
I destroy all marks on the cor. pertaining to T.40 S. R.13 W.
Set a sandstone 24x8x8 ins., 18 ins. in the ground, for closing cor. to secs. 5 and 6, marked C.C. on S., with 5 grooves on E. and 1 groove on W. faces, from which
A cedar 3 ins. diam., bears S. 1° W., 43 lks. dist., marked T.40 S. R.13 W. S.6 B.T.
A pinon 4 ins. diam., bears S. 41° E., 75 lks. dist., marked T.40 S. R.13 W. S.5 B.T.
Land mountainous.
Soil, rocky 3rd. rate.
Timber, scattering cedar and pinon.
Mountainous land on 92.37 chs.

December 16. 1902.

GENERAL DESCRIPTION OF T.40 S., R.13 W.

This township is mountainous throughout, and the soil ranges from sandy loam, in the bottoms along Ash Creek Canon, to rocky land, along the high ridges.

The township forms the S.E. slope and foothills of the Pine Valley Mountains and is generally covered with dense undergrowth and a scattering growth of cedar and pinon timber; the grazing is fair over the entire township.

The only water in this township, is Ash Creek in the eastern portion and one spring in the western portion. The village of Bellevue, is situated in secs. 1 and 2. it consists of 4 ranchers viz.

GENERAL DESCRIPTION OF T.40 S. R.13 W., concluded.

Altheria Gregersen in S.E. $\frac{1}{4}$ sec.2 and S.W. $\frac{1}{4}$ sec.1.

Land under cultivation 25.00 acres.

Value of improvements \$500.00.

Joseph Sylvester in S.E. $\frac{1}{4}$ sec.2 and S.W. $\frac{1}{4}$ sec.1.

Land under cultivation 30.00 acres.

Value of improvements \$200.00.

William Gates in S.E. $\frac{1}{4}$ sec.2 and S.W. $\frac{1}{4}$ sec.1

Land under cultivation 25 acres.

Value of improvements \$600.00.

Andrew Gregersen in N.E. $\frac{1}{4}$ sec.2 and N.W. $\frac{1}{4}$ sec.1.

Land under cultivation 35.00 acres.

Value of improvements \$1000.00.

The other settlers in this Tp. are:

Peter Anderson and James E. Anderson in S.E. $\frac{1}{4}$ sec.22,
and the N. $\frac{1}{2}$ of sec.27.

Land under cultivation 75 acres.

Value of improvements \$2500.

Silver ore has been found in sec.31 but not in paying quantities.

None of the land in this township, can be classed as mineral land.

Harvey L. Heis

U.S. DEPUTY SURVEYOR.

There being no notary public or other officer authorized to administer oaths within a reasonable distance at the beginning or ending of this survey, in order to save time and expense, I administer the preliminary and final oaths retracement and survey of T.40 S. R.13 W. myself.

Harvey L. Heis

U.S. DEPUTY SURVEYOR.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by _____
 _____, United States Deputy Surveyor, to assist in running, measuring, and
 marking the lines and corners described in the foregoing field notes of the survey of _____
 showing the respective capacities in which they acted:

_____, *Chainman.*
 _____, *Chainman.*
 _____, *Moundman.*
 _____, *Moundman.*
 _____, *Axman.*
 _____, *Axman.*
 _____, *Flagman.*

For final affidavit see book 22 page 6815 W

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted _____
 _____, United States Deputy Surveyor, in surveying all
 those parts or portions of the _____
 _____ of the _____
 _____ meridian, _____ of _____, which are represented
 in the foregoing field notes as having been surveyed by him and under his direction; and that said survey
 has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the
 corner monuments established, according to the instructions furnished by the United States Surveyor
 General for _____

_____, *Chainman.*
 _____, *Chainman.*
 _____, *Moundman.*
 _____, *Moundman.*
 _____, *Axman.*
 _____, *Axman.*
 _____, *Flagman.*

For final affidavit see book 22 page 6815 W

Subscribed and sworn to before me this _____
 day of _____, 189 _____ }



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, _____, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from _____ United States Surveyor General for _____, bearing date of the _____ day of _____, 189____, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for _____, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of _____ of the _____ meridian, in the _____ of _____, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for _____ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Final Oath Book 13

United States Deputy Surveyor.

Subscribed by said _____, and sworn to before me }
 this _____ day of _____, 189____ }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Walter D. Heist
 Salt Lake City, Utah, February 26, 1904 189____

The foregoing field notes of the survey of *The subdivision of lands of*
Tract No. 40 South Range, 13 West of the Salt Lake
Base Meridian, Utah

executed by _____
 under his contract No. *251*, dated *February 12, 1902*, 189____, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Edward H. Anderson
 United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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X.

BOOK A-297

E. J. O.

10/16

10/16

FIELD NOTES

OF THE SURVEY OF THE

R-E-T-R-A-C-E-M-E-N-T

of

THE EIGHTH STANDARD PARALLEL SOUTH

through

Range No. 13 West.

X.3.B.

Of the Salt Lake Base and Meridian,

in the state of Utah.

AS SURVEYED BY

Harvey D. Heist, United States Deputy Surveyor,

Under his Contract No. 251, dated February 12, 1902, 189

Relacement
Survey commenced December 7, 1902, 189

Relacement
Survey completed December 7, 1902, 189

Rel - low - 4-08-60 ✓

NAMES AND DUTIES OF ASSISTANTS.

William Walquist

Chainman

Frank Bringham

"

Earl V. Woolley

"

Edwin Higbee

"

Frank Duffin

Moundman

John Kitchen

Axman

Herbert Riggs

Flagman

BOOK A-297

INDEX DIAGRAM.

Township....., Range.....

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19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, William Walquist, Frank Bringham, Earl V. Woolley & Edwin Higbee do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain over even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of

the Eighth Standard Parallel South, through R. 13 W. of the Salt Lake Base and Meridian, Utah.

William Walquist, Frank Bringham, Chairman. Earl V. Woolley, Edwin Higbee, Chairman.

Subscribed and sworn to before me this 7th. day of December, 1902., 189

Harvey H. Geist U.S. Deputy Surveyor



WE, I, Frank Duffin and do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

the Eighth Standard Parallel South, through R. 13 W. of the Salt Lake Base and Meridian, Utah.

Frank Duffin, Moundman.

Subscribed and sworn to before me this 7th. day of December, 1902., 189

Harvey H. Geist U.S. Deputy Surveyor



WE, I, John Kitchen and do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

the Eighth Standard Parallel South, through R. 13 W. of the Salt Lake Base and Meridian, Utah.

John Kitchen, Axman.

Subscribed and sworn to before me this 7th. day of December, 1902., 189

Harvey H. Geist U.S. Deputy Surveyor



I, Herbert Riggs, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the retracement of the Eighth Standard Parallel South, through R. 13 W. of the Salt Lake Base and Meridian, Utah.

Herbert Riggs, Flagman.

Subscribed and sworn to before me this 7th. day of December, 1902., 189

Harvey H. Geist U.S. Deputy Surveyor



RETRACEMENT OF THE EIGHTH STANDARD PARALLEL SOUTH, through R.13 W.

CHAINS

Survey sommenced, December 7, 1902, and executed with the instrument described in book S. of this survey. I know the instrument to be in adjustment, from recent observations made November 25 and 26, and recorded in book S. of this survey.

Preliminary to completing the subdivisions of this Tp. I retrace the Eighth Standard Parallel South, along the S. Bdys. of secs. 31, 32, 33 and 34.

At 8 a.m., l.m.t., I set off 37° 17' N. on lat. arc; 22° 29' S. on decl. arc; and determine a true meridian with the solar, at the Stan. cor. of secs. 34 and 35, on the Eighth Standard Parallel South, which is a black lava stone 30x12x8 ins., in mound of stone, marked as described by the surveyor general.

Thence I run

N. 89° 26' West, on a retracement line,
along S. side of Sec. 34.

Ascend over lava boulders.

1.80 Leave lava rock, over rolling, sandy land ascend through dense artemisia, cactus and bayonet plant.

16.80 Top of sandy spur, projects S.
Descend.

24.80 Bottom of ravine, 100 ft. deep, course S.E.
Ascend.

Difference bet. measurement to old 1/4 sec. cor., by two sets of chainmen is 4 lks., position of cor. By 1st. set 40.92 chs.,

By 2nd. set 40.88 chs., the mean of which is

40.90 Fall 10 lks. N. of stan. 1/4 sec. cor., which is a gray sandstone 10x10x5 ins. above ground, I mark S.C. on N. face, and raise a mound of stone 2 ft. base, 1 1/2 ft. high, N. of cor.

Pits impracticable.

The course of this line is therefore N. 89° 34' W., and the dist. 40.90 chs.

RETRACEMENT OF THE EIGHTH STANDARD PARALLEL SOUTH, through R.13 W., continue

CHAINS	
	I offset over the cor. and run N.89° 43' W., on a retracement line, along S. side sec. 34.
4.90	Top of ridge, bears N. and S. Descend. Enter scattering cedar and pinon timber.
28.60	Wood road bears N.10° W. and S.10° E. in bottom of ravine 100 ft. deep, course S.10° E. Ascend. Difference bet. measurement to stan. cor. of secs. 33 and 34, by two sets of chainmen, is 6 lks., position of cor. By the 1st. set, 40.97 chs. By 2nd. set 40.91 chs., the mean of which is
40.94	Fall 2 lks. S. of the stan. cor. of secs. 33 and 34, which is a gray sandstone 12x12x5 ins. above the ground, marked as described by the surveyor general, the bearing trees are all destroyed, I mark S.C. on N. face, and raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor.. Pits impracticable. The course of this line is therefore N.89° 42' W., and the dist. is 40.94 chs. Land rolling. Soil sandy 3rd. rate. Timber scattering cedar and pinon on 36.00 chs. Dense undergrowth on 31.84 chs.
	<hr/>
	From the stan. cor. of secs. 33 and 34, I run N.89° 35' W., on a retracement line, along S. side of sec. 33. Over rolling land, ascend through dense artemisia, scattering oak, cactus and bayonet plant.
4.70	Top of ridge, bears N.W. and S.E.

RACEMENT OF THE EIGHTH STANDARD PARALLEL SOUTH, through R. 13 W., continued.

CHAINS	
	Descend.
18.20	Follow, 50 ft. deep, course S.E.
	Ascend.
	Difference bet. measurement to stan. $\frac{1}{4}$ sec. cor., by two
	sets of chainmen, is 4 lks., position of cor.
	By the 1st. set, 40.45 chs.,
	By the 2nd. set, 40.49 chs., the mean of which is
40.47	Fall 12 lks. N. of the stan. $\frac{1}{4}$ sec. cor., which is a white
	sandstone 26x14x4 ins. above ground, marked as described
	by the surveyor general, the bearing trees are destroy-
	ed, I mark S.C. on N. face, and raise a mound of stone
	2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
	Pits impracticable.
	The course of this line is therefore N. 89° 45' W., and
	the dist. is 40.47 chs.
	From the Standard $\frac{1}{4}$ sec. cor., on S. side of sec. 33,
	I continue my line,
44.70	Road, on top of ridge, bears N. and S.
	Descend.
48.60	Road, bears N. and S.
65.20	Bottom of broad hollow, drains S.
	Ascend.
69.00	Main road from Salt Lake City to St. George, bears N.E.
	and S.W.
76.70	Road bears N.E. and S.W.
	Difference bet. measurement to stan. cor. of secs. 32 and
	33, by two sets of chainmen is 8 lks.,
	positon of cor.
	By the 1st. set, 81.81 chs.,
	By 2nd. set, 81.73 chs., the mean of which is
81.77	Fall $\frac{1}{2}$ lks. N. of the stan. cor. of secs. 32 and 33, which
	is a red sandstone 12x12x4 ins. above the ground,
	marked as described by the surveyor general, the bearing
	trees are all destroyed. I mark S.C. on N. face, and raise
	a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.
	Pits impracticable.
	The course of this line is therefore N. 89° 40' W., and

RETRACEMENT OF THE EIGHTH STANDARD PARALLEL SOUTH, through R.13 W., continu

CHAINS

the dist. is 41.30 chs.

Land mountainous.

Soil, sandy 3rd. rate.

No timber.

Dense undergrowth on 81.77 chs.

December 7: At this cor. I set off $22^{\circ} 33' S.$ on decl. arc; and at 0h. 9m., p.m., l.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ} 17' N.$

From the stan. cor. of secs. 32 and 33, I run
 $S. 89^{\circ} 46' W.$, on a retracement line,
 along S. side of sec. 32.

Over rolling, sandy land, ascend through dense artemisia scattering oak, cactus and bayonet plant.

8.50 Wood road, bears N.E. and S.W.

Enter scattering cedar and pinon timber and service berry brush,

28.30 Top of ridge, bears N. and S.

Leave timber.

Descend.

Difference bet. measurement to stan. $\frac{1}{4}$ sec. cor., by two sets of chainmen, is 6 lks., position of cor.

By 1st. set, 41.05 chs.,

By 2nd. set, 40.99 chs., the mean of which is

41.02. Fall 20 lks. S. of the stan. $\frac{1}{4}$ sec. cor., which is a gray sandstone $20 \times 8 \times 5$ ins., above ground, marked as described by the surveyor general, I mark S.C. on N. face, and raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, N. of cor.

Pits impracticable.

The course of this line is therefore $N. 89^{\circ} 57' W.$, and the dist. is 41.02 chs.

From the Standard $\frac{1}{4}$ sec. cor., on S. side of sec. 32, I continue my line,

Difference bet. measurement to stan. cor. of secs. 31 and 32, by two sets of chainmen is 2 lks.,

RETRACEMENT OF THE EIGHTH STANDARD PARALLEL SOUTH, through R.13 W., continued.

CHAINS	position of cor.
	By 1st.set,82.32 chs.,
	By 2nd.set,82.34 chs.,the mean of which is
82.33	Fall 45 lks.S.of the stan.cor.of secs.31 and 32,which is a gray sandstone 8x8x5 ins.above ground,marked as described by the surveyor general,the bearing trees are all destroyed,I mark S.C.on N.face,and raise a mound of stone 2 ft.base,1½ ft.high,N.of cor. Pits impracticable.
	The course of the line is therefore N.89° 36'W.,and the dist.is 41.31 chs.
	Land rolling.
	Soil,sandy 3rd.rate.
	Timber scattering cedar and pinon .

	From the stan.cor.of secs.31 and 32,I run West,on a retracement line, along S.side of sec.31.
	Over rolling,sandy land,descend through dense artemisia and scattering cactus.
4.00	Bottom of canon,50 ft.deep,course S.E. Ascend.
22.70	Wood road,bears N.E.and S.W.
31.50	Top of low ridge,bears N.and S. Descend.
35.50	Hollow,50 ft.deep,drains S.E. Ascend.
37.00	Descend.
39.50	Hollow,50 ft.deep,course S. Ascend.
	Difference bet.measurement to stan.¼ sec.cor.,by two sets of chainmen is 4 lks.,position of cor.
	By 1st.set,41.31 chs.,
	By 2nd.set,41.35 chs.,the mean of which is
41.33	Fall 26 lks.N.of stan.¼ sec.cor.,which is a gray

RETRACEMENT OF THE EIGHTH STANDARD PARALLEL SOUTH, through R. 13 W., conclude

CHAINS

sandstone 10x10x5 ins. above ground, marked as described by the surveyor general, I mark S.C. on N. face, and raise a mound of stone 2 ft. base, 1½ ft. high, N. of cor.

Pits impracticable.

The bearing trees to this cor. are all destroyed.

The course of this line is therefore S. 89° 39' W., and the dist. is 41.33 chs. I continue my line.

44.50 Descend.

50.00 Hollow, 50 ft. deep, course S.E.

Ascend.

65.00 Top of ridge, bears N.W. and S.E.

Descend.

66.00 A shaft 5x5 ft., 75 ft. deep, bears N. 35 lks.

73.00 Hollow, 50 ft. deep, course S.E.

Ascend.

Difference bet. measurement to Tp. cor. by two sets of chainmen is 2 lks., position of cor.

By 1st. set, 82.65 chs.,

By 2nd. set, 82.67 chs., the mean of which is

82.66 Fall 51 lks. N. of stan. cor. to Tp. 40 S. Rs. 13 and 14 W. heretofore described.

The course of this line is therefore S. 89° 39' W.

and the dist. is 41.33.

Land rolling.

Soil sandy 3rd. rate.

No timber.

Dense undergrowth on 82.66 chs.

December 7, 1902.

For general description, see book of subdivisions, of T. 40 S., R. 13 W.

For latitude and departure table, see Boundaries of T. 40 S., R. 13 W.

Harvey M. Hois
U. S. DEPUTY SURVEYOR.

NOTE-

There being no notary public or other officer authorized to administer oaths within a reasonable distance at the beginning or ending of this survey, in order to save time and expense I administer the preliminary and final oaths myself.

Harvey S. Heist

U. S. DEPUTY SURVEYOR.

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Harvey D. Heist

United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of retracement

the Eighth Standard Parallel South, through R. 13 W. of the Salt Lake Base and Meridian, Utah. showing the respective capacities in which they acted:

- William Walquist, Frank Bringham, Chairman.
Earl V. Woolley, Edwin Higbee, Chairman.
Frank Duffin, Moundman.
John Kitchen, Arman.
Herbert Riggs, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Harvey D. Heist

United States Deputy Surveyor, in retracing all those parts or portions of the

Eighth Standard Parallel South, through R. 13 W.

of the Salt

Lake Base and meridian, in the state of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor

General for Utah.

- William Walquist, Frank Bringham, Chairman.
Earl V. Woolley, Edwin Higbee, Chairman.
Frank Duffin, Moundman.
John Kitchen, Arman.
Herbert Riggs, Flagman.

Subscribed and sworn to before me this 7th day of December, 1902, 189

Harvey D. Heist

U.S. Deputy Surveyor



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, Harvey D. Heist, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Edward H. Anderson United States Surveyor General for Utah, bearing date of the 12th day of February, 1902, 1892, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Utah, the Manual of Surveying Instructions, and the laws of the United States, ^{retraced} surveyed all those parts or portions of the Eighth Standard Parallel South, through R. 13 W.

of the Salt Lake Base and and meridian, in the state of Utah, which are represented in the foregoing field notes as having been ^{retraced} surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Utah, and in the specific manner described in the field notes, and that the foregoing are the original field notes of ^{retracement} such survey; and should any fraud be detected, I will suffer the penalty of perjury under the provisions of an Act of Congress approved August 8, 1846.

Harvey D. Heist
United States Deputy Surveyor

Subscribed by said Harvey D. Heist, and sworn to before me }
this 26th day of March 1903, 1893

Edward H. Anderson
Surveyor General for Utah



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Validated by Deputy Surveyor 21 February 21 1904

The foregoing field notes of the ^{retracement} ~~survey~~ of the Eighth Standard Parallel South through Range 13 West of the Salt Lake Base and Decisions, Utah

executed by Harvey D. Heist under his contract No. 251, dated February 12 1902, 1892, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the ^{retracement} surveys they describe, are hereby approved.

Edward H. Anderson
United States Surveyor General

I certify that the foregoing transcript of the field notes of the above-described surveys in _____, has been correctly copied from the original notes on file in this office.

United States Surveyor General